



GENERAL CATALOGUE

**ROOFING, WATERPROOFING
AND THERMAL INSULATION MATERIALS**

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ABOUT TECHNINICOL

8000

QUALIFIED EMPLOYEES

69

PRODUCTION SITES

10

R&D CENTERS

more than 30

YEARS ON THE MARKET



TECHNINICOL Corporation is the largest Russian and European manufacturer and supplier of roofing, waterproofing, sound and thermal insulation materials.

The company was founded in 1992 and since then has accumulated considerable experience on the building materials market. We are proud to offer up-to-date materials and technologies that combine global expertise and elaboration of our own R&D centers. Wide range of high-quality materials and reliable solutions

allows making a choice that is best suited to the customer both in price and in quality.

At present, TECHNINICOL Corporation owns 69 production sites in Europe and Asia, retail network of 140 branches and representative offices in 37 countries. Company materials were already used in more than 200.000 sites in 118 countries around the world. It is an honor for us to be a partner for more than 500 independent distributors presenting 32 of our own brands.



PRODUCTION IMPROVEMENT

The key of the successful activity of TECHNONICOL resides in the high quality of research and control before, during and after production processes. All export plants of TECHNONICOL have passed UNI EN ISO 9001 and UNI EN ISO 14001 certification and strictly comply with the quality standards determined by these international requirements.

All plants of TECHNONICOL are committed to continuous improvement of pollution prevention and compliance with relevant environmental legislation:

- All plants of the Corporation are subjected to state environmental appraisal at their design stage. The environment at our industrial sites is monitored daily. TECHNONICOL invests in waste free production, advanced equipment and environmental protection technologies.
- All products developed and supplied by TECHNONICOL meet environmental standards and are safe for humans and the environment.

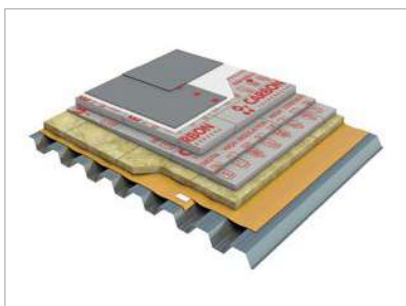


Our production capacities and equipment give us an ability to supply materials for large construction projects and to develop unique products based on individual requirements. Competence of employees, professional technical consultations, development of new materials in our own R&D centers, quality of products and solutions – all of these allow TECHNONICOL to approach each

client individually and help us to meet every customer's expectations and needs.

Improved customer service is also one of our priority principles. Leadership of TECHNONICOL products on the waterproofing market is achieved not only due to the quality of products we produce, but also due to a high level of technical support.

RELIABLE SOLUTIONS



TECHNONICOL Corporation develops and promotes materials and systems that minimize energy loss in the industrial and public utilities sectors. We introduce construction systems, aimed at the creation of comprehensive protection of the structure from the foundation to the roof.

The products, offered by TECHNONICOL Corporation — high-quality waterproofing and thermal insulation materials — are fully compatible and can be used in the offered systems. Material compatibility with each other is one of the basic conditions to obtain a reliable complete insulation system. That is why our experts have developed a number of professional technical solutions for different types of projects. Here we follow three main principles: the compatibility of components, durability and reasonable price.

RESEARCH AND DEVELOPMENT

TECHNONICOL has ten scientific research and development centers located close to the production sites and a number of laboratories to test new materials. Our scientists are focused on the study of performance of building materials, prevention of their aging, increasing the possibilities of application by expanding the operating temperature range, developing additional functions, such as air purification, resistance to moss growth or increasing energy efficiency.

The main activities of the R&D centers are:

- creation of new roofing, waterproofing and thermal insulation materials;
- investigation: chemical, physical and other analysis, assistance in solving technological problems;
- modernization of production technology;
- improvement of methods for the analysis of raw materials and finished products, introduction of rapid methods;
- collaborative support provided to factories' laboratories.

Laboratories on the factories operate on the basis of modern equipment, which is used to study the physical and mechanical characteristics of materials in a wide temperature range, determine the structure and composition of raw materials, test the durability of materials. A unique chromatograph equipment is used to determine the composition of bitumen for the production of roofing materials, and to ensure optimal selection of the type and amount of modifying additives.

An artificial climate chamber is used to study the aging process of materials. The method gives the possibility to predict waterproofing materials performance after many years of exploitation on the roof in just 2 or 3 months of testing.



Fire-safe materials and construction systems are one of the major priorities of TECHNONICOL Corporation. Our roofing and waterproofing membranes fully comply with strict European fire safety regulations. Bitumen and synthetic membranes are capable to resist flames and correspond to E class. Roofing systems are tested to evaluate the fire performance and meet the criteria for the Broof classification. TECHNONICOL stone wool matches the requirements of A1 Euroclass.

Research and implementation of advanced technologies allow TECHNONICOL to bring new products and many product variations depending on customer needs each year.

In cooperation with the research and development centers, our factories have obtained a number of product certificates issued by many prestigious institutes around the world.





Gurugram, India
AIR HOTEL BY AHUJA RESIDENCY



Bengaluru, India
BANGALORE INTERNATIONAL AIRPORT - TERMINAL 2

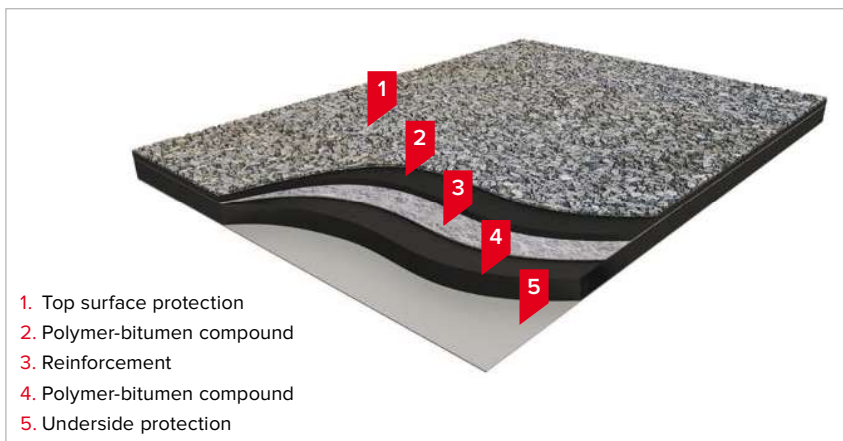


Goa, India
RIVA RESORT





POLYMER- BITUMEN MEMBRANES



The most widespread materials for creation of the waterproofing layer are the polymer-bitumen roll-fed membranes. This is due to a relative simplicity of installation, popularity of the technology, durability of the material and stability of the factory-set technical parameters. Polymer-bitumen membranes are commonly used for waterproofing of foundations, engineering structures, roads, bridge decks and flat roofs. These materials could also be used as an underlay for pitched roofs and as a vapor barrier.

Polymer-bitumen membranes are affected by many unfavourable factors from the external environment. Changes in the surrounding temperature can cause deformations of the material and the substrate on which it is installed. The ability to withstand such deformations is the most important characteristic of roofing and waterproofing materials and it depends on many components used at the production stage.

POLYMER-BITUMEN COMPOUND

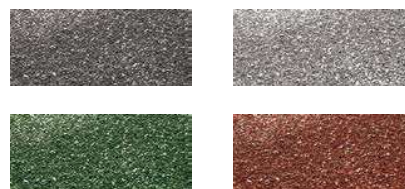
The compound is a specially formulated mixture of bitumen and polymers. The main difference between the compound types is the type of polymer used:

- **APP** polymer provides additional flow resistance that makes it possible to use the material in a very hot climate.
- **SBS** polymer provides additional flexibility and dynamic resistance to the material.
- Special anti-root additives can be added to the polymer-bitumen compound to make it resistant to root penetration and ensure a reliable waterproofing of green roofs and foundations.

indicators become completely fused (the surface is all black), it means that the material is overheated. The material is heated properly when the graphic indicators are deformed but visible.

- Polymer film without graphic elements is used as top surface protection of underlay membranes and materials designed for waterproofing of foundations and engineering structures.
- Perforated polymer film can be used as underside protection to ensure even points of adhesion distribution and increase the speed of installation of the material.

SLATE



The coarse-grained mineral slate with special hydrophobic treatments protects the material from damage by ultraviolet radiation during the whole service life of the membrane. It is used for cap sheet membranes in double-layer waterproofing systems.

The slate can be supplied in various colors that will provide nice aesthetic appearance. The standard colors include natural grey, red, green and white, while other colors are available on request.

REINFORCEMENT



- **Polyester** provides excellent elongation properties and gives optimal strength to the material.
- **Glass fiber** provides additional dimensional stability but does not impart elongation properties.

POLYMER FILM



- Thin polymer film is used to protect the underside surface from sticking in the roll. The film is covered with special graphic indicators for easier and more reliable torch-on installation. The film melts when heated. If the graphic

SELF-ADHESIVE SURFACE

The special adhesive polymer-bitumen compound is used for the production of self-adhesive membranes. The compound is covered with easily removable protective film. Self-adhesive materials ensure high speed of safe and cheap application and do not require any additional equipment and skills. Such materials can also be used in conditions, when the standard torch-on application is forbidden (expanded / extruded polystyrene or wooden base, indoor waterproofing).

FINE-GRAINED SAND OR TALCUM



Fine-grained sand or talcum can be used to cover the top or underside surface of the membrane. Such type of covering allows installation by means of hot or cold applied mastics or by torching.

SPECIAL COVERING



ENVIRO eco-friendly product line makes a positive impact on the environment – thanks to the surface with special additives it helps to purify city air, increase energy efficiency of buildings and protect the roof from moss overgrowing. These materials successfully and effectively combine environmental friendliness and technologies aimed at improving living standards and reducing the operation cost of the facility. ENVIRO product line was created with a real care about the future of our planet.

TORCH-ON APPLICATION



1. The surface must be cleaned of dust, debris, grease, leaves and should not have gaps and cracks or other irregularities. The surface must be treated with primer before the installation of a waterproofing material.
2. During the installation, the material and the substrate must be heated by torch across the full width of the roll; the place of overlapping must be heated additionally. When properly installed, the whole surface of the material gets stuck to the substrate and bitumen leaks from under the edges for about 5–10 mm.
3. A cap sheet membrane should be positioned at a distance of min. 300 mm from the overlaps of an underlay membrane. Usually it is moved at a distance of 500 mm (50% of the roll width). The distance between different end laps of rolls should be at least 500 mm.
4. The overlap along the edge joint should be 100 mm. The recommended overlap for single-layer application of bitumen membrane is 120 mm. The overlap at sheet ends should not be less than 150 mm. The minimum length of a roll material that can be installed is 1 m.
5. The roofer should remove coarse-grained slate in places of end overlaps of the cap sheet membrane, because it significantly reduces the adhesion of the material. The top side of the material (with slate) must be additionally heated by torch in places of such overlaps. Then the slate is pressed into bitumen by spatula.

APPLICATION WITH MASTIC



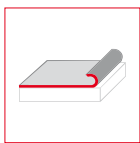
1. The surface must be cleaned of dust, debris, grease, leaves and should not have gaps and cracks or other irregularities. The surface must be treated with primer before applying the mastic.
2. Spread the attaching mastic across the substrate with a special spatula following the recommendations on layer thickness. It is recommended to use a special cold-applied roofing mastic, but hot-applied mastic can also be used. Hot-applied mastic should be pre-melted at a temperature of 180°C before being applied to the substrate.
IMPORTANT! Mastic is always applied to the surface, not to the material.
3. Roll-fed materials should be installed on the spread mastic layer avoiding creases and bubbles.
IMPORTANT! Only materials with a coating of fine-grained sand are suitable for mastic-application.
4. Straighten the roll-fed material by smoothing it with a brush to avoid creases or bubbles of air on the material. Then fix the completely glued roll with a heavy roller.
5. Press down the material at the overlaps with a heavy roller until mastic flows out of the joint. Mastic should be flowing out from under the overlap for 7–10 mm for the best joint quality.

INSTALLATION OF A SINGLE-PLY BITUMEN MEMBRANE



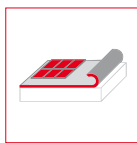
1. Automatic equipment such as Leister Varimat may be used for welding the overlaps in the process of installation. In this case it is recommended to prepare an additional assembly strip. It will make the installation more convenient and faster. At the end next to the assembly strip the end joints do not need to be staggered. This technological method can be also used in the process of torch-on application.
2. Side overlaps should be not less than 120 mm, end overlaps should be 150 mm. The distance between the staggered overlaps (if needed) must be at least 500 mm. On a shaped decking roof, a single-ply membrane should be installed across the flooring waves.
3. The corners of rolls should be cut in places of T-shaped joints.
4. Cutting the corners allows to increase the quality of welded joints and avoid lack of material welding in such places.
5. The places that cannot be welded with an automatic equipment are welded with a heat gun.

AREAS OF APPLICATION



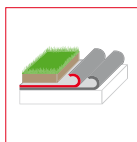
SINGLE-LAYER ROOFING

Waterproofing of shopping centers, industrial or any other buildings with a large roof area, where it is important to get a quick result (the installation of a single-layer system takes less time than the installation of a double-layer system). For single-ply roofing, a thicker membrane is required.



DOUBLE-LAYER ROOFING

A very reliable solution for flat roof waterproofing is a double layer system, characterized by a reduced risk of leaks. Two types of polymer-bitumen membranes are used for such systems. A cap sheet membrane is used as a top layer. The top side of the membrane is usually protected from UV with coarse-grained slate or basalt granules. The membrane for the bottom layer is protected with polymeric film or fine-grained sand depending on the type of fastening of the system layers.

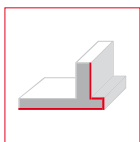


INDOOR WATERPROOFING

This group includes self-adhesive membranes and materials with fine-grained sand on the bottom side that can be fixed to the surface by means of mastics in order to avoid using an open flame. It is used for waterproofing of bathrooms, kitchens and other internal premises with high air humidity.

CAP SHEET MEMBRANE FOR GREEN ROOFS

The top layer of roof cladding with special anti-root additives in the polymer-bitumen compound designed for the construction of "green roof" – a type of ballast roof with greenery on top. It is also used for foundation waterproofing with additional protection from roots of plants located nearby.



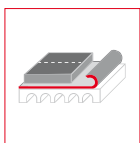
FOUNDATIONS AND BLIND SIDES OF BELOW-GRADE WALLS

Waterproofing of foundations, blind sides of below-grade walls and underground structures of all types. It protects the structure from groundwater, stormwater runoff, floods, etc. and increases the service life of the whole structure in general.



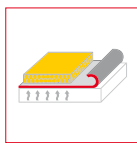
ROOFING UNDERLAY FOR PITCHED ROOFS

Underlay material for all kinds of pitched roofs with the protective covering on top (bitumen shingles, ceramic tiles, metal tiles, etc.). The application of an underlay membrane is required to ensure additional protection from any possible leakages.



BRIDGES AND ROADS WATERPROOFING

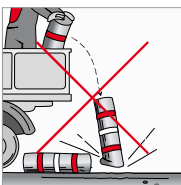
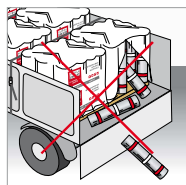
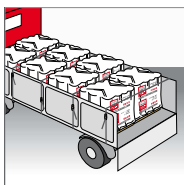
Waterproofing of concrete and steel bridge decks, flyovers, car parkings and other traffic areas. The membrane should have an enhanced physical and mechanical properties to withstand the operational movements of the substrate.



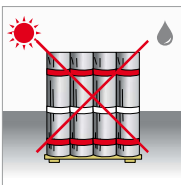
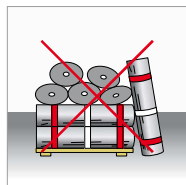
VAPOR BARRIER

A vapor barrier for flat roofs of residential, public or industrial buildings suitable for all types of substrate – concrete, metal, wood, etc. It is necessary for protection of thermal insulation and roof cladding from moisture, which is formed due to a difference between indoor and outdoor temperature and air humidity.

TRANSPORTATION AND STORAGE



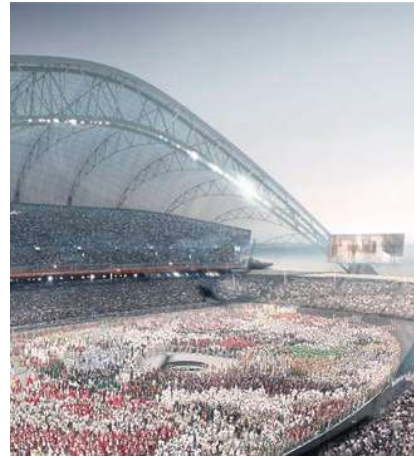
- The rolls must be transported in closed vehicles in an upright position on a pallet in a 1-row height.
- Ropes should be used to fasten the pallet in order to avoid film damage.
- Avoid falls or other mechanical impacts during loading and unloading of rolls.



- The protective film of the rolls should not be damaged after unloading.
- The rolls should be stored upright on pallets in a 1-row height.
- Storage of the rolls in a horizontal position is prohibited.
- Protect the rolls from direct UV-rays and moisture.
- Keep the minimum distance of 1 m from any source of heat.



Sochi, Russia
FISHT CENTRAL OLYMPIC STADIUM



Jakarta, Indonesia
CIBIS TOWER



Klaipeda, Lithuania
VLANTANA, LOGISTICS CENTER



TORCH APPLIED MEMBRANES

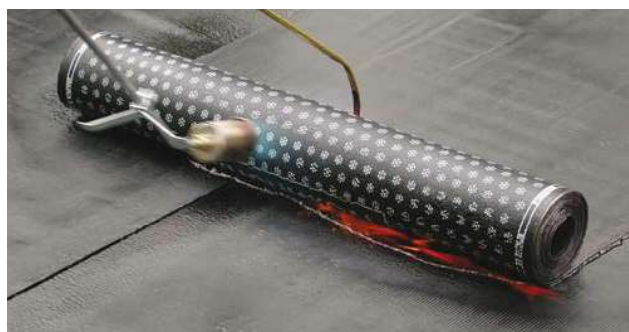
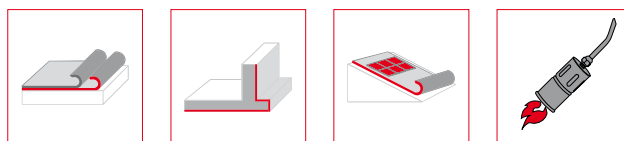
ULTRAPLAST

APP MODIFIED BITUMEN ROOFING AND WATERPROOFING MEMBRANE

ULTRAPLAST APP-modified bitumen membrane is designed for installation as a single layer in non-exposed one-layer and as a bottom layer in double-layer roofing system of buildings and structures and for the waterproofing of foundations and engineering structures. It can also be used as an underlay for bitumen shingles on pitched roofs. The membrane is used for new construction or repair.

The material withstands temperature fluctuations and high mechanical loads providing a long-term, reliable and effective waterproofing. APP polymer provides additional flow resistance that makes it possible to use the material in a very hot climate.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with a polymer film.



PROPERTIES	TEST METHOD	ULTRAPLAST A 2 3 4 mm	ULTRAPLAST B 2 3 4 mm	ULTRAPLAST C 2 3 4 mm
Thickness, mm	EN 1849-1	2.0±0.20 3.0±0.20 4.0±0.20		
Mass per unit area, kg/m ²	EN 1849-1	2.8±0.28 3.8±0.38 5.1±0.48		
Length x width, m	EN 1848-1	15 x 1 10 x 1 10 x 1		
Softening point, °C	ASTM D36	≥145	≥145	≥145
Flexibility at low temperature, °C	EN 1109-1	≤-6	≤-2	≤0
Flow resistance at elevated temperature, °C	EN 1110	≥120	≥120	≥120
Elongation at break L / T, %	ASTM D5147	45±9 / 50±10	40±8 / 45±9	40±8 / 45±9
Tensile strength L / T, N/50 mm	ASTM D5147	850±170 / 650±130	750±150 / 600±120	650±130 / 400±80
Tear resistance L / T, N	ASTM D4073	350±100 / 350±100	300±100 / 300±100	300±100 / 300±100
Reinforcement type	-	polyester	polyester	polyester
Protective coating type on the top	-	polymer film	polymer film	polymer film
Protective coating type at the bottom	-	polymer film	polymer film	polymer film

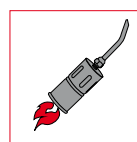
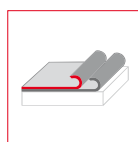
ULTRAPLAST grey mineral

APP MODIFIED BITUMEN ROOFING AND WATERPROOFING CAP SHEET MEMBRANE

ULTRAPLAST grey mineral APP-modified bitumen membrane is designed for installation as a single layer and the top layer in double-layer roofing system on buildings and structures. It can be used for new construction or repair.

The material withstands temperature fluctuations and high mechanical loads providing a long-term, reliable and effective waterproofing. APP polymer provides additional flow resistance that makes it possible to use the material in a very hot climate.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with a coarse-grained slate with special hydrophobic treatment that protects the material from damage by ultraviolet radiation during the whole service life of the membrane.



PROPERTIES	TEST METHOD	ULTRAPLAST A 3 4 mm grey mineral	ULTRAPLAST B 3 4 mm grey mineral	ULTRAPLAST C 3 mm grey mineral
Thickness, mm	EN 1849-1	3.0±0.20 4.0±0.20	3.0±0.20 4.0±0.20	3.0±0.20
Mass per unit area, kg/m ²	EN 1849-1	3.8±0.38 5.1±0.48	3.8±0.38 5.1±0.48	3.8±0.38
Length x width, m	EN 1848-1	10 x 1	10 x 1	10 x 1
Softening point, °C	ASTM D36	≥145	≥145	≥145
Flexibility at low temperature, °C	EN 1109-1	≤-6	≤-2	≤0
Flow resistance at elevated temperature, °C	EN 1110	≥120	≥120	≥120
Elongation at break L / T, %	ASTM D5147	45±9 / 50±10	40±8 / 45±9	40±8 / 45±9
Tensile strength L / T, N/50 mm	ASTM D5147	850±170 / 650±130	750±150 / 600±120	650±130 / 400±80
Tear resistance L / T, N	ASTM D4073	350±100 / 350±100	300±100 / 300±100	300±100 / 300±100
Reinforcement type	-	polyester	polyester	polyester
Protective coating type on the top	-	coarse-grained slate	coarse-grained slate	coarse-grained slate
Protective coating type at the bottom	-	polymer film	polymer film	polymer film

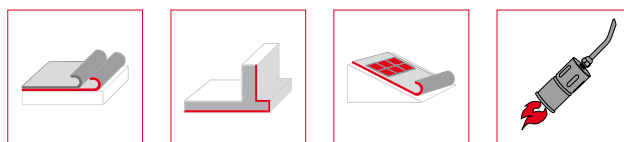
ULTRAFLEX

SBS MODIFIED BITUMEN ROOFING AND WATERPROOFING MEMBRANE

ULTRAFLEX SBS-modified bitumen membrane is designed for installation as a single layer in non-exposed one-layer and as a bottom layer in double-layer roofing systems of buildings and structures and for the waterproofing of foundations and engineering structures. It can also be used as an underlay for bitumen shingles on pitched roofs. The membrane is used for new construction or repair.

The material withstands temperature fluctuations and high mechanical loads providing a long-term, reliable and effective waterproofing. SBS polymer provides additional flexibility and dynamic resistance.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with a polymer film.



PROPERTIES	TEST METHOD	ULTRAFLEX A 2 mm	ULTRAFLEX A 3 mm	ULTRAFLEX A 4 mm
Thickness, mm	EN 1849-1	2.0±0.20	3.0±0.20	4.0±0.20
Mass per unit area, kg/m ²	EN 1849-1	2.8±0.28	3.8±0.38	5.1±0.48
Length x width, m	EN 1848-1	15 x 1	10 x 1	10 x 1
Softening point, °C	ASTM D36	≥110	≥110	≥110
Flexibility at low temperature, °C	EN 1109-1	≤-10	≤-10	≤-10
Flow resistance at elevated temperature, °C	EN 1110	≥100	≥100	≥100
Elongation at break L / T, %	ASTM D5147	45±9 / 50±10	45±9 / 50±10	45±9 / 50±10
Tensile strength L / T, N/50 mm	ASTM D5147	850±170 / 650±130	850±170 / 650±130	850±170 / 650±130
Tear resistance L / T, N	ASTM D4073	350±100 / 350±100	350±100 / 350±100	350±100 / 350±100
Reinforcement type	-	polyester	polyester	polyester
Protective coating type on the top	-	polymer film	polymer film	polymer film
Protective coating type at the bottom	-	polymer film	polymer film	polymer film

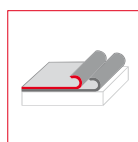
ULTRAFLEX grey mineral

SBS MODIFIED BITUMEN ROOFING AND WATERPROOFING CAP SHEET MEMBRANE

ULTRAFLEX grey mineral SBS-modified bitumen membrane is designed for installation as a single layer and the top layer in double-layer roofing system on buildings and structures. It can be used for new construction or repair.

The material withstands temperature fluctuations and high mechanical loads providing a long-term, reliable and effective waterproofing. SBS polymer provides additional flexibility and dynamic resistance.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with a coarse-grained slate with special hydrophobic treatment that protects the material from damage by ultraviolet radiation during the whole service life of the membrane.



PROPERTIES	TEST METHOD	ULTRAFLEX A 3 mm grey mineral	ULTRAFLEX A 4 mm grey mineral
Thickness, mm	EN 1849-1	3.0±0.20	4.0±0.20
Mass per unit area, kg/m ²	EN 1849-1	3.8±0.38	5.1±0.48
Length x width, m	EN 1848-1	10 x 1	10 x 1
Softening point, °C	ASTM D36	≥110	≥110
Flexibility at low temperature, °C	EN 1109-1	≤-10	≤-10
Flow resistance at elevated temperature, °C	EN 1110	≥100	≥100
Elongation at break L / T, %	ASTM D5147	45±9 / 50±10	45±9 / 50±10
Tensile strength L / T, N/50 mm	ASTM D5147	850±170 / 650±130	850±170 / 650±130
Tear resistance L / T, N	ASTM D4073	350±100 / 350±100	350±100 / 350±100
Reinforcement type	-	polyester	polyester
Protective coating type on the top	-	coarse-grained slate	coarse-grained slate
Protective coating type at the bottom	-	polymer film	polymer film

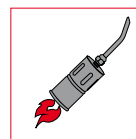
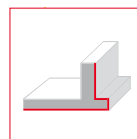
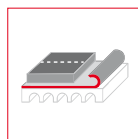
ULTRAPLAST BRIDGE

APP MODIFIED BITUMEN WATERPROOFING MEMBRANE FOR BRIDGES AND FLYOVERS

ULTRAPLAST BRIDGE APP-modified bitumen membrane is designed for the waterproofing of orthotropic steel plate and reinforced concrete slabs of carriageways when asphalt concrete (up to +220°C) is laid directly on the waterproofing layer. It can be also used as a single-layer waterproofing of the foundation.

ULTRAPLAST BRIDGE is a waterproofing material produced by the two-sided placing of a special high-quality polymer-bitumen binder on an extra strong polyester base. The material has the highest physical and mechanical properties and can withstand very high temperatures.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with fine-grained sand.



PROPERTIES	TEST METHOD	ULTRAPLAST BRIDGE
Thickness, mm	EN 1849-1	5.2±0.10
Mass per unit area, kg/m ²	EN 1849-1	5.8±0.25
Length x width, m	EN 1848-1	8 x 1
Softening point, °C	ASTM D36	≥150
Flexibility at low temperature, °C	EN 1109-1	≤-25
Flow resistance at elevated temperature, °C	EN 1110	≥140
Elongation at break L / T, %	ASTM D5147	≥40 / ≥40
Tensile strength L / T, N/50 mm	ASTM D5147	≥1000 / ≥900
Tear resistance L / T, N	ASTM D4073	-
Reinforcement type	-	polyester
Protective coating type on the top	-	fine-grained sand
Protective coating type at the bottom	-	polymer film

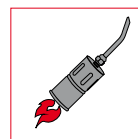
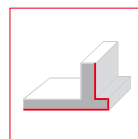
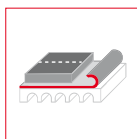
ULTRAFLEX BRIDGE

SBS MODIFIED BITUMEN WATERPROOFING MEMBRANE FOR BRIDGES AND FLYOVERS

ULTRAFLEX BRIDGE SBS-modified bitumen membrane is designed for the waterproofing of reinforced concrete slabs of the carriageways of bridge structures and other traffic areas. It can also be used for the waterproofing of foundations.

ULTRAFLEX BRIDGE is a waterproofing material produced by the two-sided placing of a high-quality polymer-bitumen binder on a polyester base. The material has additional durability and resistibility features thanks to a special formula of polymer-bitumen binder and increased thickness.

On the bottom side, the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side, the material is coated with fine-grained sand.



PROPERTIES	TEST METHOD	ULTRAFLEX BRIDGE
Thickness, mm	EN 1849-1	5.0±0.20
Mass per unit area, kg/m ²	EN 1849-1	6.4±0.25
Length x width, m	EN 1848-1	8 x 1
Softening point, °C	ASTM D36	≥110
Flexibility at low temperature, °C	EN 1109-1	≤-25
Flow resistance at elevated temperature, °C	EN 1110	≥100
Elongation at break L / T, %	ASTM D5147	≥40 / ≥40
Tensile strength L / T, N/50 mm	ASTM D5147	≥600 / ≥600
Tear resistance L / T, N	ASTM D4073	-
Reinforcement type	-	polyester
Protective coating type on the top	-	fine-grained sand
Protective coating type at the bottom	-	polymer film

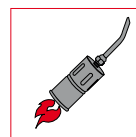
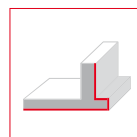
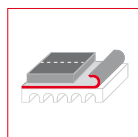
TECHNOELAST MOST B GREY SLATE

SBS-MODIFIED BITUMEN MEMBRANE FOR WATERPROOFING OF REINFORCED CONCRETE BRIDGE SLABS AND OTHER TRAFFIC AREAS

TECHNOELAST MOST B GREY SLATE SBS-modified bitumen membrane is designed for the waterproofing of reinforced concrete slabs of the carriageways of bridge structures and other traffic areas. It can also be used as single-layer waterproofing of foundations.

TECHNOELAST MOST B grey slate is a waterproofing material produced by two-sided placing of a high-quality polymer-bitumen binder on a polyester base. The material has additional durability and resistibility features thanks to a special formula of polymer-bitumen binder and increased thickness.

On the bottom side the material is coated with a polymer film with special graphic elements, melting of which indicates proper material heating. On the top side the material is coated with coarse-grained slate that protects the material from direct sunlight during installation.



PROPERTIES	TEST METHOD	TECHNOELAST MOST B 3.5 mm GREY SLATE	TECHNOELAST MOST B 4.5 mm GREY SLATE
Thickness, mm	EN 1849-1	3.6±0.1	4.6±0.1
Mass per unit area, kg/m ²	EN 1849-1	≥ 4,2	≥ 5.4
Length x width, m	EN 1848-1	10 (±0,2) x 1 (±0,03)	10 (±0,2) x 1 (±0,03)
Softening point, °C	ASTM D36	≥ +110	≥ +110
Flexibility at low temperature, °C	EN 1110	≤ -20	≤ -20
Flow resistance at elevated temperature, °C	EN 1110	≥ +100	≥ +100
Tensile properties: elongation at break L / T, %	ASTM D5147	40±20 / 40±20	40±20 / 40±20
Tear resistance L / T, N	ASTM D5147	500±150 / 500±150	500±150 / 500±150
Tensile properties: tensile strength L / T, N/50mm	ASTM D5147	≥ 600 / ≥ 600	≥ 600 / ≥ 600
Water resistance at a pressure of 0.2 MPa applied for 24 hours	EN 1928	Pass	Pass
Reinforcement type	-	polyester	polyester
Protective coating type on the top	-	coarse-grained slate	coarse-grained slate
Protective coating type at the bottom	-	polymer film	polymer film

SELF-ADHESIVE MEMBRANES

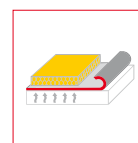
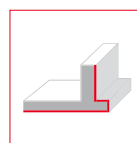
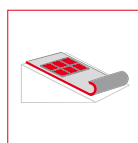
ULTRAFLEX SA

SBS MODIFIED BITUMEN SELF-ADHESIVE WATERPROOFING MEMBRANE

ULTRAFLEX SA self-adhesive polyester reinforced SBS-modified bitumen membrane is designed for completely safe application. It is used as an underlay on pitched roofs and as a vapor barrier. It can also be used for waterproofing of foundations and engineering structures. Thanks to a special adhesive bitumen compound, the material can be used on the surfaces where the standard torch-on application is forbidden (a flammable substrate).

ULTRAFLEX SA waterproofing material has the following advantages:

- additional strength due to polyester reinforcement;
- it can be used on the substrates where the standard torch-on application is forbidden (wood, XPS, etc.);
- high speed of application;
- safe and cheap application – the membrane is applied without the use of gas and flame;
- no need for any additional equipment and skills;
- cold application method prevents formation of smoke, odors and noise.



PROPERTIES	TEST METHOD	ULTRAFLEX SA 1.5 mm	ULTRAFLEX SA 2.0 mm
Thickness, mm	EN 1849-1	1.5±0.20	2.0±0.20
Mass per unit area, kg/m ²	EN 1849-1	1.8±0.20	2.3±0.20
Length x width, m	EN 1848-1	20 x 1	20 x 1
Softening point, °C	ASTM D36	≥100	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-20	≤-20
Flow resistance at elevated temperature, °C	EN 1110	≥90	≥90
Elongation at break L / T, %	ASTM D5147	35±20 / 35±20	35±20 / 35±20
Tensile strength L / T, N/50 mm	ASTM D5147	400±100 / 300±100	400±100 / 300±100
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	≥40 / ≥20	≥60 / ≥30
Reinforcement type	-	polyester	polyester
Protective coating type on the top	-	polymer film or sand	polymer film or sand
Protective coating type at the bottom	-	anti-adhesion film	anti-adhesion film

ULTRAFLEX SA TOP

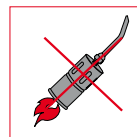
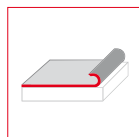
SBS-MODIFIED BITUMEN SELF-ADHESIVE ROOFING AND WATERPROOFING MEMBRANE

ULTRAFLEX SA TOP self-adhesive polyester reinforced SBS-modified bitumen membrane is a roofing and waterproofing material designed for single-layer installation on unexploited flat roofs with a slope of up to 5° (installation on roofs with a slope of up to 22° is possible with an additional mechanical fastening of the overlaps). It can be used for new construction or repair.

ULTRAFLEX SA TOP is used on low-shrink substrates, such as concrete, cement-sand screed, fiber-cement boards, cement-bonded particleboards and their analogs.

ULTRAFLEX SA TOP roofing material has the following advantages:

- Single-layer roofing;
- It can be installed on flammable decking (OSB-3, plywood, etc.);
- Longitudinal self-adhesive strips on the top side of the material provide reliably sealed overlapping;
- High speed of application;
- No need for any additional equipment and skills;
- Cold application method prevents smoke, odors and noise;
- High strength due to polyester reinforcement.



PROPERTIES	TEST METHOD	ULTRAFLEX SA TOP
Thickness, mm	EN 1849-1	4.2±0.42
Mass per unit area, kg/m ²	EN 1849-1	5.0±0.25
Length x width, m	EN 1848-1	8 x 1
Softening point, °C	ASTM D36	≥110
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥100
Elongation at break L / T, %	ASTM D5147	30±15 / 30±15
Tensile strength L / T, N/50 mm	ASTM D5147	≥600 / ≥400
Peel resistance of joints: overlap to overlap, N/50 mm	EN 12316-1	≥25
Reinforcement type	-	polyester
Protective coating type on the top	-	coarse-grained slate
Protective coating type at the bottom	-	anti-adhesion film

ULTRAFLEX SA 7000-X

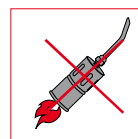
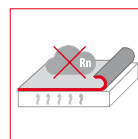
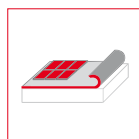
SBS-MODIFIED BITUMEN SELF-ADHESIVE NON-REINFORCED MEMBRANE WITH RECORD ELONGATION PROPERTIES

ULTRAFLEX SA 7000-X self-adhesive carrierless SBS-modified bitumen membrane is designed for the waterproofing of foundations and engineering structures with the additional feature of radon protection.

ULTRAFLEX SA 7000-X is produced by placing a special self-adhesive polymer-bitumen binder on a unique high-performance polymer film that coats the material on top. The bottom surface of the material is coated with an easily removable protective film.

ULTRAFLEX SA 7000-X waterproofing material has the following advantages:

- record high elongation properties prevent the material from damage caused by movements of the substrate;
- excellent physical and mechanical characteristics in all directions;
- prevents radon penetration into the structure;
- high speed of application;
- safe and cheap application – the membrane is applied without the use of gas and flame.



PROPERTIES	TEST METHOD	ULTRAFLEX SA 7000-X
Thickness, mm	EN 1849-1	1.5±0.10
Mass per unit area, kg/m ²	EN 1849-1	1.5±0.15
Length x width, m	EN 1848-1	20 × 1
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥85
Elongation at break L / T, %	ASTM D5147	≥800 / ≥800
Tensile strength L / T, N/50 mm	ASTM D5147	400±100 / 300±100
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	≥25 / -
Reinforcement type	-	carrierless
Protective coating type on the top	-	high-performance polymer film
Protective coating type at the bottom	-	anti-adhesion film

ULTRAFLEX SA NB

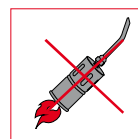
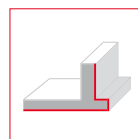
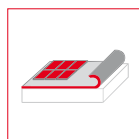
SBS MODIFIED BITUMEN SELF-ADHESIVE NON-REINFORCED MEMBRANE FOR WATERPROOFING

ULTRAFLEX SA NB self-adhesive non-reinforced SBS-modified bitumen membrane is designed for the waterproofing of foundations and engineering structures as well as for indoor waterproofing.

The material is produced by placing a special self-adhesive polymer-bitumen binder on a thick polymer film that coats the material on top. The other side of the material is coated with a removable protective film. The absence of a carrier is a key feature of this material that makes it very elastic and flexible.

ULTRAFLEX SA NB waterproofing material has the following advantages:

- it can be used on the surfaces where the standard torch-on application is forbidden (wood, XPS, etc.);
- high speed of application;
- no need for any additional equipment and skills;
- safe and cheap application – the membrane is applied without the use of gas and flame;
- it can be used for indoor waterproofing.



PROPERTIES	TEST METHOD	ULTRAFLEX SA NB
Thickness, mm	EN 1849-1	1.5±0.10
Mass per unit area, kg/m ²	EN 1849-1	1.5±0.25
Length x width, m	EN 1848-1	20 x 1
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥85
Elongation at break L / T, %	ASTM D5147	≥200 / ≥200
Determination of shear resistance of joints, kN/m	EN 12317-1	≥2.0
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	- / ≥25
Reinforcement type	-	carrierless
Protective coating type on the top	-	thick polymer film
Protective coating type at the bottom	-	anti-adhesion film

ULTRAFLEX SA NBS

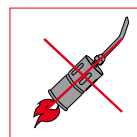
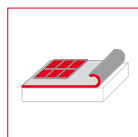
SBS MODIFIED BITUMEN SELF-ADHESIVE NON-REINFORCED MEMBRANE FOR INDOOR WATERPROOFING

ULTRAFLEX SA NBS self-adhesive non-reinforced SBS-modified bitumen membrane with spunbond as the top protective layer is designed for indoor waterproofing.

The material is produced by placing a special self-adhesive binder on the spunbond that coats the material on top. The other side of the material is coated with a removable protective film.

ULTRAFLEX SA NBS waterproofing material has the following advantages:

- it is used for indoor waterproofing with a direct installation of ceramic tiles onto the material without the need of protective sand cement screed;
- high speed of application;
- safe and cheap application – the membrane is applied without the use of gas and flame;
- no need for any additional equipment and skills;
- cold application method prevents smoke, odors and noise and makes it suitable for indoor works.



PROPERTIES	TEST METHOD	ULTRAFLEX SA NBS
Thickness, mm	EN 1849-1	1.5±0.10
Mass per unit area, kg/m ²	EN 1849-1	1.5±0.25
Length x width, m	EN 1848-1	20 x 1
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥85
Elongation at break L / T, %	ASTM D5147	≥60 / ≥60
Determination of shear resistance of joints, kN/m	EN 12317-1	≥2.0
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	≥25 / -
Reinforcement type	-	carrierless
Protective coating type on the top	-	spunbond
Protective coating type at the bottom	-	anti-adhesion film

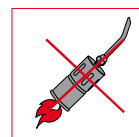
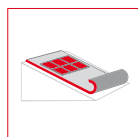
ULTRAFLEX SA HDPE D

SBS-MODIFIED BITUMEN MEMBRANE FOR UNDERGROUND WATERPROOFING

ULTRAFLEX SA HDPE D self-adhesive carrierless SBS-modified bitumen membrane is designed for the waterproofing of foundations and engineering structures.

ULTRAFLEX SA HDPE D is produced by placing a special self-adhesive polymer-bitumen binder on across-laminated HDPE (high-density polyethylene) film that coats the material on top. Double self-adhesive lateral overlapping strips (one on each side of the top surface of the membrane) simplify the installation of the waterproofing system. The bottom surface of the material is coated with an easily removable protective film.

- Cross-laminated HDPE film gives additional dimensional stability to the material.
- Two self-adhesive lateral overlapping strips provide a maximum reliability to the joints sealing and allow temporary fastening of protection boards.
- High speed of application.
- No need for any additional equipment and skills.
- Cold application method prevents smoke, odors, and noise.



PROPERTIES	TEST METHOD	ULTRAFLEX SA HDPE
Thickness, mm	EN 1849-1	1.5±0.10
Mass per unit area, kg/m ²	EN 1849-1	1.5±0.15
Length x width, m	EN 1848-1	20x1
Softening point, °C	ASTM D36	≥ +100
Flexibility at low temperature, °C	EN 1109-1	≤ -15
Flow resistance at elevated temperature, °C	EN 1110	≥ +85
Tensile properties: elongation at break L / T, %	ASTM D5147	≥ 300 / ≥ 250
Tensile strength L / T, N/50 mm	ASTM D5147	220±80 / 220±80
Determination of shear resistance of joints, kN/m	EN 12317-1	≥ 2.0
Reinforcement type	-	carrierless
Protective coating type on the top	-	cross-laminated HDPE film
Protective coating type at the bottom	-	self-adhesive binder / anti-adhesion film

VAPORSTOP CA 500

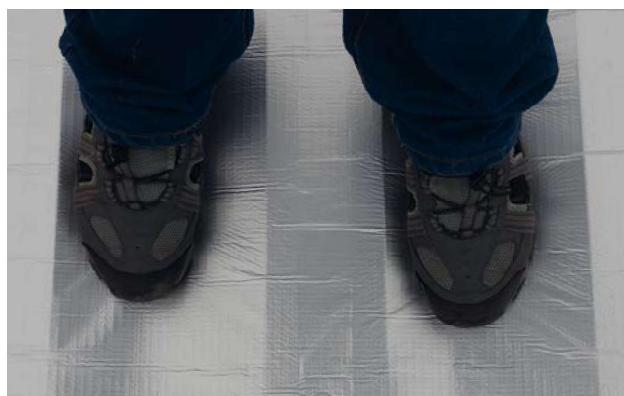
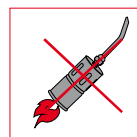
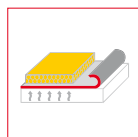
SBS MODIFIED BITUMEN SELF-ADHESIVE VAPOR BARRIER

VAPORSTOP CA 500 flexible reinforced SBS-modified bitumen membrane is used as a high-performance vapor barrier in roof waterproofing systems.

The material is produced on the basis of a glass net carrier coated with SBS-modified self-adhesive bitumen binder. The membrane is protected on the bottom side with an easily removable siliconized film, while the top surface is coated with aluminium foil.

VAPORSTOP CA 500 vapor barrier has the following advantages:

- it provides very effective vapor insulation;
- high tensile strength makes it possible to walk on the material during its installation;
- reliable adhesive properties prevent the material from shifting and make it invulnerable to the wind load;
- high speed of application;
- no need for any additional equipment and skills;
- high reparability.



PROPERTIES	TEST METHOD	VAPORSTOP CA 500
Mass per unit area, kg/m ²	EN 1849-1	0.5±0.1
Length x width, m	EN 1848-1	50 x 1.08
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-25
Flow resistance at elevated temperature, °C	EN 1110	≥90
Elongation at break L / T, %	ASTM D5147	≥2.0 / ≥2.0
Tensile strength L / T, N/50 mm	ASTM D5147	600±120 / 600±120
Determination of shear resistance of joints, kN/m	EN 12317-1	≥1.5
Peel resistance of joints: overlap to overlap / overlap to film, N/50 mm	EN 12316-1	≥50
Reinforcement type	-	glass net
Protective coating type on the top	-	aluminium foil
Protective coating type at the bottom	-	anti-adhesion film

SPECIAL PURPOSE MEMBRANES

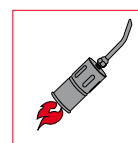
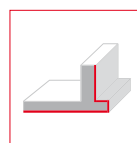
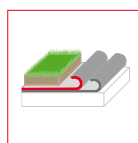
ULTRAFLEX GREEN

SBS MODIFIED BITUMEN ROOFING AND WATERPROOFING MEMBRANE FOR GREEN ROOFS

ULTRAFLEX GREEN SBS-modified bitumen membrane is designed for the waterproofing of green roofs and underground engineering structures. The material has an additional mechanical protection on top, which makes it resistant to damage caused by roots of plants and ensures reliable waterproofing. A special chemical compound prevents roots penetration, but at the same time does not have a negative effect on plants or environment.

ULTRAFLEX GREEN can be used both for the installation of green roofs and for foundation waterproofing with an additional protection from the roots of plants growing nearby.

The green roof reduces energy costs, increases real estate value and service life of the roof, serves as a sound insulation layer. It also creates an aesthetically attractive landscape and recreational space, increases biodiversity in urban areas, regulates the temperature and humidity in the building and the environment, purifies the air and the rainwater. The installation of green roofs may be supported by the government via grants or reduced taxes.



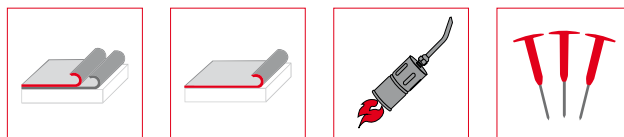
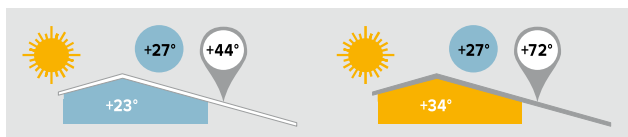
PROPERTIES	TEST METHOD	ULTRAFLEX GREEN
Thickness, mm	EN 1849-1	3.3±0.20
Mass per unit area, kg/m ²	EN 1849-1	4.0±0.25
Length x width, m	EN 1848-1	10 x 1
Softening point, °C	ASTM D36	≥120
Flexibility at low temperature, °C	EN 1109-1	≤-25
Flow resistance at elevated temperature, °C	EN 1110	≥100
Elongation at break L / T, %	ASTM D5147	50±25 / 50±25
Tensile strength L / T, N/50 mm	ASTM D5147	700±100 / 500±100
Tear resistance L / T, N	ASTM D4073	180±30 / 180±30
Reinforcement type	-	polyester
Protective coating type on the top	-	thick polymer film
Protective coating type at the bottom	-	polymer film

TECHNONICOL ENVIRO WHITE

SBS MODIFIED BITUMEN ROOFING MEMBRANE FOR COOL ROOF

TECHNONICOL ENVIRO WHITE is a roofing SBS-modified bitumen membrane that allows obtaining the effect of “cool roof” thanks to the white slate with high solar reflection used as the top protective layer. As a result, the roof does not heat up and the temperature under the roof remains comfortable. The use of the material reduces energy costs for conditioning the premises under the roof by 10-30% and increases the service life of the roof.

The membrane is designed for installation as the top layer in double-layer roofing systems or as a single-ply polymer-bitumen roofing membrane on buildings and structures. It can be used for new construction or repair.



PROPERTIES	TEST METHOD	TECHNONICOL ENVIRO WHITE
Thickness, mm	EN 1849-1	4.0±0.10
Mass per unit area, kg/m ²	EN 1849-1	5.0±0.25
Length x width, m	EN 1848-1	8 x 1
Softening point, °C	ASTM D36	≥110
Flexibility at low temperature, °C	EN 1109-1	≤-25
Flow resistance at elevated temperature, °C	EN 1110	≥100
Elongation at break L / T, %	ASTM D5147	50±25 / 50±25
Tensile strength L / T, N/50 mm	ASTM D5147	700±100 / 500±100
Tear resistance L / T, N	ASTM D4073	180±30 / 180±30
Reinforcement type	-	polyester
Protective coating type on the top	-	white coarse-grained slate
Protective coating type at the bottom	-	polymer film

TECHNONICOL ENVIRO AIR

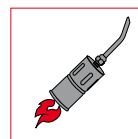
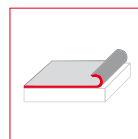
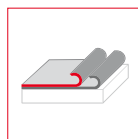
SBS MODIFIED BITUMEN ROOFING AND WATERPROOFING MEMBRANE FOR REDUCING AIR POLLUTION

TECHNONICOL ENVIRO AIR is a roofing and waterproofing SBS-modified bitumen membrane with a special feature of air purification from harmful nitrogen oxides (NO_x). Hydrophobized slate used as the top protective layer is coated with titanium dioxide (TiO_2) and special additives.

It is designed for installation as the top layer in double-layer roofing systems or as a single-ply polymer-bitumen roofing membrane on buildings and structures. It can be used for new construction or repair.

TECHNONICOL ENVIRO AIR roofing material has the following advantages:

- actively influences the reduction of toxic NO_x gas in the air;
- the coating protects the material from UV radiation and prevents the destruction of bitumen compound;
- it contributes to the destruction of organic contaminants.



PROPERTIES	TEST METHOD	TECHNONICOL ENVIRO AIR
Thickness, mm	EN 1849-1	4.0±0.10
Mass per unit area, kg/m ²	EN 1849-1	5.0±0.25
Length x width, m	EN 1848-1	8 x 1
Softening point, °C	ASTM D36	≥110
Flexibility at low temperature, °C	EN 1109-1	≤-25
Flow resistance at elevated temperature, °C	EN 1110	≥100
Elongation at break L / T, %	ASTM D5147	50±25 / 50±25
Tensile strength L / T, N/50 mm	ASTM D5147	700±100 / 500±100
Tear resistance L / T, N	ASTM D4073	180±30 / 180±30
Reinforcement type	-	polyester
Protective coating type on the top	-	coarse-grained slate with special additives
Protective coating type at the bottom	-	polymer film

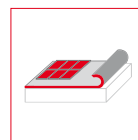
TECHNONICOL SOUNDSTOP SUPER

SBS-MODIFIED BITUMEN MEMBRANE FOR IMPACT NOISE INSULATION AND WATERPROOFING OF FLOOR SLABS

TECHNONICOL SOUNDSTOP SUPER fiberglass reinforced SBS-modified bitumen membrane with soundproof fabric prevents the spread of an impact noise, which is transmitted through the floor slabs. The material is used indoors for the installation of a soundproofing and waterproofing layer in the systems of "floating" flooring, heated flooring, flooring with lags and interior partitions. A special non-woven fabric on the bottom side of the membrane imparts effective soundproofing properties to the material, while aluminized film on the top side helps to reduce the influence of electromagnetic fields.

TECHNONICOL SOUNDSTOP SUPER soundproofing membrane has the following advantages:

- high index of impact noise reduction;
- it also serves as the waterproofing layer due to the increased thickness of the bitumen compound;
- the material is resistant to decay;
- the small total thickness of the material allows retaining the same height of the flooring;
- no need for any additional equipment and skills;
- safety and cheap application – the membrane is applied without the use of gas and flame;
- it helps to reduce the influence of electromagnetic fields from the sources placed on adjacent floors.



PROPERTIES	TECHNONICOL SOUNDSTOP SUPER
Mass per unit area, kg/m ²	2.2±0.25
Length x width, m	10 x 1
Maximum impact noise reduction index ΔLn, dB	27
Water resistance at a pressure of 0.2 MPa applied for 2 hours	Pass
Dynamic modulus of elasticity under load of 2 kPa, MPa	≤0.15
Tensile strength, N	≥300
Reinforcement type	glass fiber
Protective coating type on the top	aluminized film
Protective coating type at the bottom	non-woven soundproof fabric

UNDERLAYMENT

UNDERLAY PRO (S) 500

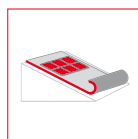
SBS-MODIFIED BITUMEN POLYESTER REINFORCED ULTRALIGHT UNDERLAY MEMBRANE FOR PITCHED ROOFS WITH MECHANICAL FASTENING

UNDERLAY PRO (S) 500 SBS-modified bitumen membrane is used as an underlayment for roofing shingles in the systems of pitched roofs with mechanical fastening (nailing).

The material is installed on a continuous rigid wood decking (OSB-3, plywood, tongue and groove planks). It cannot be used in zones of valleys and eaves as those areas are most prone to leakages and require the application of UNDERLAY NEXT SELF or ULTRAFLEX SA self-adhesive membranes.

UNDERLAY PRO (S) 500 waterproofing material has the following advantages:

- Additional strength due to polyester reinforcement;
- Excellent physical and mechanical characteristics ensure extra durability;
- The bottom side of the material is coated with fine-grained sand, the top one – with spunbond that prevents the installers from slipping off a pitched roof;
- Ultralight weight of the membrane makes application on a roof slope easier and safer;
- The high-quality polymer-bitumen compound has the property of self-healing, which ensures absolute tightness in places of nail penetration;
- Also available in a variation with longitudinal thermoactive bitumen overlap strips for increased convenience and speed of application – UNDERLAY PRO (S) 500 stick.



PROPERTIES	TEST METHOD	UNDERLAY PRO (S) 500
Mass per unit area, kg/m ²	EN 1849-1	0.5±0.1
Length, m	EN 1848-1	25±2%
Width, m	EN 1848-1	1±3%
Flexibility at low temperature, °C	EN 1109-1	≤-20
Flow resistance at elevated temperature, °C	EN 1110	≥+120
Elongation at break L / T, %	ASTM D5147	40±10 / 40±10
Tensile strength L / T, N/50 mm	ASTM D5147	500±150 / 400±100
Tear resistance L / T, N	ASTM D4073	180±50 / 180±50
Reinforcement type	-	polyester
Protective coating type on the top	-	spunbond
Protective coating type at the bottom	-	fine-grained sand

UNDERLAY BASE 900

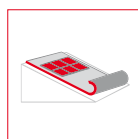
SBS-MODIFIED BITUMEN GLASS FIBER REINFORCED UNDERLAY MEMBRANE FOR PITCHED ROOFS WITH MECHANICAL FASTENING

UNDERLAY BASE 900 SBS-modified bitumen membrane is used as an underlayment for roofing shingles in the systems of pitched roofs with mechanical fastening (nailing).

The material is installed on a continuous rigid wood decking (OSB-3, plywood, tongue and groove planks). It cannot be used in zones of valleys and eaves as those areas are most prone to leakages and require the application of UNDERLAY NEXT SELF or ULTRAFLEX SA self-adhesive membranes.

UNDERLAY BASE 900 waterproofing material has the following advantages:

- Both sides of the material are coated with fine-grained sand that prevents the installers from slipping off a pitched roof;
- The light weight of the membrane makes application on a roof slope easier and safer;
- The high-quality polymer-bitumen compound has the property of self-healing, which ensures absolute tightness in places of nail penetration.



PROPERTIES	TEST METHOD	UNDERLAY BASE 900
Mass per unit area, kg/m ²	EN 1849-1	0.9±0.1
Length x width, m	EN 1848-1	20 x 1
Flexibility at low temperature, °C	EN 1109-1	≤-5
Flow resistance at elevated temperature, °C	EN 1110	≥95
Elongation at break L / T, %	ASTM D5147	4±2 / 4±2
Tensile strength L / T, N/50 mm	ASTM D5147	400±100 / 400±100
Tear resistance L / T, N	ASTM D4073	100±50 / 100±50
Reinforcement type	-	glass fiber
Protective coating type on the top	-	fine-grained sand
Protective coating type at the bottom	-	fine-grained sand

UNDERLAY BASE 1500

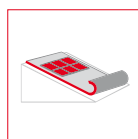
SBS-MODIFIED BITUMEN GLASS FIBER REINFORCED UNDERLAY MEMBRANE FOR PITCHED ROOFS WITH MECHANICAL FASTENING

UNDERLAY BASE 1500 SBS-modified bitumen membrane is used as an underlayment for roofing shingles in the systems of pitched roofs with mechanical fastening (nailing).

The material is installed on a continuous rigid wood decking (OSB-3, plywood, tongue and groove planks). It cannot be used in zones of valleys and eaves as those areas are most prone to leakages and require the application of UNDERLAY NEXT SELF or ULTRAFLEX SA self-adhesive membranes.

UNDERLAY BASE 1500 waterproofing material has the following advantages:

- Both sides of the material are coated with fine-grained sand that prevents the installers from slipping off a pitched roof;
- The light weight of the membrane makes application on a roof slope easier and safer;
- The high-quality polymer-bitumen compound has the property of self-healing, which ensures absolute tightness in places of nail penetration;
- Also available in a variation with longitudinal thermoactive bitumen overlap strips for increased convenience and speed of application – UNDERLAY BASE 1500 stick.



PROPERTIES	TEST METHOD	UNDERLAY BASE 1500
Mass per unit area, kg/m ²	EN 1849-1	1.5±0.1
Length x width, m	EN 1848-1	20 x 1
Flexibility at low temperature, °C	EN 1109-1	≤-20
Flow resistance at elevated temperature, °C	EN 1110	≥95
Elongation at break L / T, %	ASTM D5147	4±2 / 4±2
Tensile strength L / T, N/50 mm	ASTM D5147	400±100 / 400±100
Tear resistance L / T, N	ASTM D4073	100±50 / 100±50
Reinforcement type	-	glass fiber
Protective coating type on the top	-	fine-grained sand
Protective coating type at the bottom	-	fine-grained sand

UNDERLAY NEXT SELF

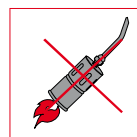
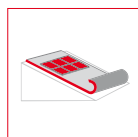
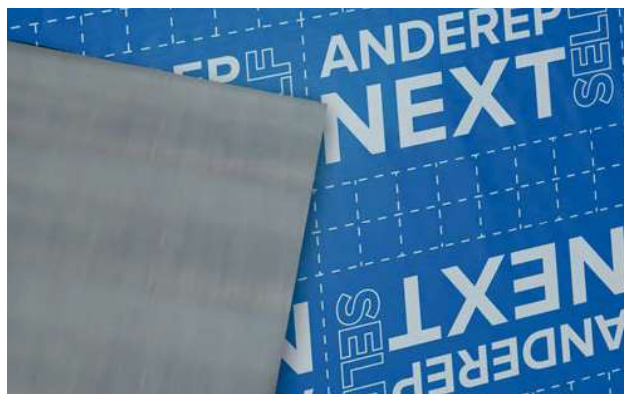
SBS-MODIFIED BITUMEN SELF-ADHESIVE NON-REINFORCED UNDERLAY MEMBRANE FOR PITCHED ROOFS

UNDERLAY NEXT SELF self-adhesive non-reinforced SBS-modified bitumen membrane is used as an underlay on pitched roofs with a continuous rigid wood decking (OSB-3, plywood, tongue and groove planks).

The top side of the material is coated with a strong multilayer polypropylene fabric. The self-adhesive binder on the bottom side is coated with an easily removable protective film.

UNDERLAY NEXT SELF waterproofing material has the following advantages:

- it gets stuck well to the top surface and does not require the use of adhesive mastic on the overlaps;
- multilayer polypropylene fabric prevents the installers from slipping off a pitched roof;
- lightweight material;
- fast and easy application;
- special marking lines on the fabric make the following installation of the roofing shingles easier.



PROPERTIES	TEST METHOD	UNDERLAY NEXT SELF
Mass per unit area, kg/m ²	EN 1849-1	1.0±0.1
Length x width, m	EN 1848-1	25 × 1
Softening point, °C	ASTM D36	≥100
Flexibility at low temperature, °C	EN 1109-1	≤-15
Flow resistance at elevated temperature, °C	EN 1110	≥90
Elongation at break L / T, %	EN 12311-1	20±10 / 20±10
Tensile strength L / T, N/50 mm	EN 12311-1	600±200 / 600±200
Tear resistance L / T, N	EN 12310-1	500±100 / 500±100
Peel resistance of joints: overlap to film, N/50 mm	EN 12316-1	40±15
Reinforcement type	-	carrierless
Protective coating type on the top	-	multilayer polypropylene fabric
Protective coating type at the bottom	-	anti-adhesion film



Noida, India
DLF MOIN-MALL OF INDIA



Karjat, India
RADISSON BLU RESORT & SPA KARJAT



Olsztyn, Poland
WARMINSKA SHOPPING CENTER





SELF-ADHESIVE SEALANT TAPE

NICOBAND

SELF-ADHESIVE SEALANT TAPE

NICOBAND sealant tape is a very convenient way to seal various cracks and joints. It can also be used to insulate junctions, for roofing repairs and for roof repair systems.

ADVANTAGES:

- Protected from UV radiation. The bitumen layer of NICOBAND sealant tape is protected from UV radiation with aluminum coating. This makes it possible to use the tape outdoor.
- Easy to use and durable. NICOBAND sealant tape is very easy to use and its application requires no special skills. The sealing function of the tape extends for its full lifetime (10 years) thanks to a specially formulated polymer-bitumen binder.
- Different colors. The tape is designed for the most popular roofing colors. It allows performing repairs or maintenance in the tone of the main surface without disturbing its form.



- Flawless adhesion to many different surfaces. The self-adhesive layer provides perfect quality adhesion to many different surfaces: metal, slate, wood, plastic, plaster, concrete, glass, etc.

METHOD OF APPLICATION:

The surface must be flat, dry and clean. Cut the tape to required length, remove the protective film, stick the tape to the desired area and press it firmly. If the temperature is below +5°C it is necessary to first keep NICOBAND in room temperature for at least 12 hours before application. The use of the material at sub-zero temperatures requires additional heating of the surface. The use of NICOBAND is not recommended on hot vertical surfaces or on surfaces with a temperature above +80°C.

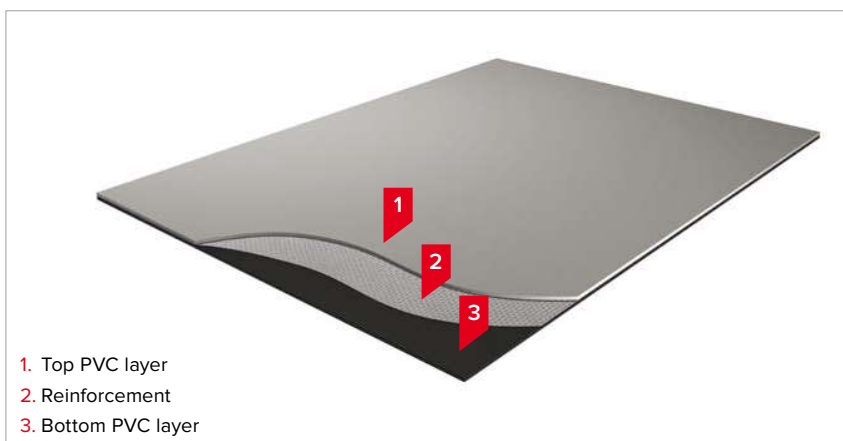


	WIDTH, cm	5	7.5	10	15	20	30
Length: 3 m		+	+	+	+	-	-
Length: 10 m		-	+	+	+	+	+

TAPE DIMENSIONS, mm	PACKAGE SIZE, mm	QUANTITY IN PACKAGE	WEIGHT OF PACKAGE, kg
3000x50	box 240x240x320	24	5.9
3000x75	box 240x240x320	16	5.9
3000x100	box 240x240x320	12	5.9
3000x150	box 240x240x320	8	5.9
10000x75	box 180x180x320	4	5
10000x100	box 180x180x320	3	5
10000x150	box 180x180x320	2	5
10000x200	box 180x180x320	1	3.5
10000x300	box 180x180x320	1	5



POLYMERIC MEMBRANES



Synthetic membranes are used for foundation, tunnel and roof waterproofing systems. These reliable and durable waterproofing materials are produced by using the co-extrusion technology - best available at present time. Due to the optical quality control, we can guarantee uniform thickness of the produced membranes. All synthetic membranes of TECHNOMICOL have a CE marking. It is a manufacturer's declaration that the product complies with the essential requirements of harmonized European standards.

More than 200,000,000 m² of roofs, tunnels and foundations have been protected with various types of TECHNOMICOL synthetic waterproofing membranes.

PRODUCTION QUALITY

We produce synthetic membranes with top technical characteristics thanks to:

- our own full-cycle plants with modern equipment;
- progressive extrusion production technology;
- European raw materials of the highest quality;
- contribution of our own research and development centres and laboratories at the plants;
- careful and precise control before, during and after production.

As a result, the client gets a waterproofing material of homogeneous structure without internal defects, ensuring high standards of quality and durability.

CERTIFICATES AND AWARDS

- The quality of TECHNOMICOL membranes is confirmed by a number of international certification bodies, such as FM (USA), BBA (UK), SINTEF (Norway), DBA (Netherlands), SKZ (Germany) and many others.
- Certificates of conformity according to harmonized European standards (CE marking according to EN 13956).
- External fire performance test reports (Broof (t1), Broof (t3)).

- Continuous updating and on-going of other certification programs.

UNIQUE SERVICE

Comprehensive approach allows us to provide personalized service to each customer at the highest level:

- wide range of solutions for each technically different project;
- complete range of accessories and components for each individual system;
- on-site supervision and quality control during installation;
- technical advice to partners.

A VERSATILE TOOL FOR SOLVING COMPLEX PROBLEMS

TECHNOMICOL synthetic membranes are the quintessence of more than 20 years of technical experience of dedicated specialists, engineers and technologists whose daily work and objective is to embody the ideas of customers: contractors, architects, designers. The company is actively promoting turnkey solutions for waterproofing of roofs, foundations and tunnels. TECHNOMICOL is ready to offer a complete system solution that is ideal for each individual project. Moreover, the use of synthetic membranes allows increasing the speed of application due to the roll width of more than 2 m and the possibility of automatic welding.

MATERIAL RANGE

The company is ready to offer a wide range of synthetic membranes, which are distinguished by the area of application:

ROOFING MEMBRANES

- High elasticity for the ease of installation.
- Resistance to punctures and mechanical impacts.
- Reliable protection from UV radiation during the whole service life of the membrane through the TRI-P® system of special protective fire retardants and stabilizers.

UNDERGROUND WATERPROOFING MEMBRANES

- A special signal layer for early detection of a damage to the membrane.
- Possibility to install the material on uneven and wet concrete surfaces.
- Resistance to punctures and mechanical impacts.
- High elasticity for the ease of installation.

DRAINAGE MEMBRANES

- HDPE membranes are produced by the extrusion method.
- A special profiled surface.
- Comprehensive mechanical properties.
- Lightweight and easy to install material for different purposes.



INSTALLATION



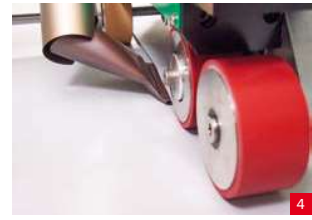
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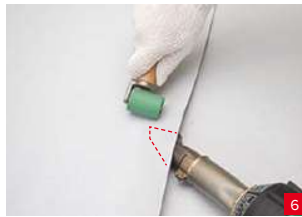


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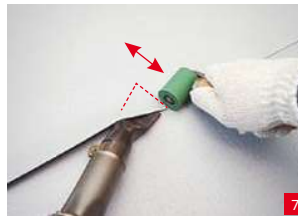
1. Unroll the membrane and position it with a 12 cm overlap for fasteners. Membranes are marked at the factory with seam overlap lines and fastener location lines for the ease of installation. Half width rolls can be used in the critical perimeter and corner areas of the building.
2. All welded surfaces should be clean and dry. Automatic hot air welding equipment LEISTER VARIMAT is recommended to use for welding the overlaps. Such settings as speed, air flow and welding temperature can be adjusted to accommodate to the variable ambient temperature.
3. Release the lock on the gun mechanism; the nozzle should lay flat on the membrane adjacent to the overlapping membrane. Then slide the nozzle between two membranes until the gun mechanism locks.
4. The machine will now move automatically according to the configured settings.



5



6



7



8

5. The corners of the membranes should be cut with scissors to the round shape. It is recommended to avoid creating cross overlaps of more than three sheets.
6. In case of using a manual hot air welding equipment, it is recommended to perform pre-welding to avoid air leakage from the welding zone. The back edge of the overlap should be welded with a thin continuous pre-weld. To do this, insert the nozzle of the hot air gun and move it quickly along the membrane for the length of the desired welding with one rib of the roller pressing the membrane to the nozzle edge.
7. In order to carry out the final welding, insert the hot air gun into the remaining overlap at a 45° angle. Once the proper welding temperature has been reached and the membrane begins to “flow”, the hand roller is positioned perpendicular to the nozzle and pressed lightly. Move the gun along the overlap, simultaneously move the silicon roller across the joint.
8. In order to check the quality of the weld use a strip (min 30 mm) of 2 welded membranes. Cut out the strip and pull apart 2 welded membranes with your hands. Rupture of a high quality weld should occur on the material along with exposure of the reinforcing net, the weld should not delaminate.

EXAMPLES OF DETAIL WATERPROOFING



TRANSPORTATION AND STORAGE



- Rolls of synthetic membranes are delivered on pallets.
- All rolls of synthetic membranes have white labels identifying the membrane, its thickness, length and width.
- Every roll is packed in an additional individual package.
- Rolls of synthetic membranes should be stored lying down on pallets fully protected from moisture with clean canvas tarpaulins.
- Keep the minimum distance of 1 m from any source of heat.

PVC MEMBRANES

MEMBRANES FOR ROOFING



LOGICROOF V-SR

NON-REINFORCED FLEXIBLE PVC MEMBRANE FOR REINFORCING CORNERS AND SEALING CONNECTIONS BETWEEN DIFFERENT ROOF ELEMENTS

LOGICROOF V-SR is a special PVC membrane without reinforcement, which is designed for reinforcing corners and sealing connections between different roof elements such as piping, funnels, aerators and other protruding objects. The material is welded to the main waterproofing layer with hot air.

The main advantage of this material is its high elasticity. The top layer is featured by a very high resistance to weather factors and UV rays, while the bottom layer offers high resistance to puncture.



PROPERTIES	TEST METHOD	LOGICROOF V-SR
Thickness, mm	EN 1849-2	1.5
Mass per unit area, kg/m ²	EN 1849-2	1.8
Length x width, m	EN 1848-2	20 x 2.1
Tensile strength L / T, MPa	EN 12311-2	≥16 / ≥15
Elongation at break, %	EN 12311-2	≥200
Tear resistance, N	EN 12310-2	≥150
Resistance to static load, kg	EN 12730 B	≥20
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥800 / ≥1000
Peel resistance of joints, N/50 mm	EN 12316-2	≥400
Shear resistance of joints, N/50 mm	EN 12317-2	≥700
Foldability at low temperature, °C	EN 495-5	≤-30
Watertightness, kPa	EN 1928-2 B	≥10

LOGICROOF V-RP

POLYESTER REINFORCED PVC MEMBRANE FOR SINGLE-PLY WATERPROOFING OF EXPOSED FLAT ROOFS

LOGICROOF V-RP is a premium quality PVC membrane, which is used for single-ply waterproofing of exposed flat roofs. It is fastened mechanically with hot air welding of overlaps.

LOGICROOF V-RP is a polyester reinforced multi-layer synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). The top layer is featured by a very high resistance to weather factors and UV rays, while the bottom layer offers a high resistance to puncture.

It can be supplied in different colors: grey, white, red, green and blue. A variation with a non-slippery textured surface of the top layer LOGICROOF V-RP (T) is available.



LOGICROOF V-RP FB

GLASS FIBER REINFORCED PVC MEMBRANE WITH LAMINATED GEOTEXTILE FLEECE ON THE BOTTOM FOR SINGLE-PLY WATERPROOFING OF EXPOSED FLAT ROOFS

LOGICROOF V-RP FB is a premium quality PVC membrane with laminated geotextile fleece on the bottom surface, which is designed for use in fully adhered systems. The material is used for single-ply waterproofing of exposed flat roofs.

LOGICROOF V-RP FB is a polyester reinforced multi-layer synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). The top layer is featured by a very high resistance to weather factors and UV rays, while the bottom layer offers a high resistance to puncture.

A variation with a non-slippery textured surface of the top layer LOGICROOF V-RP FB (T) is available.



PROPERTIES	TEST METHOD	LOGICROOF V-RP				LOGICROOF V-RP FB	
Thickness, mm	EN 1849-2	1.2	1.5	1.8	2.0	1.5	2.0
Mass per unit area, kg/m ²	EN 1849-2	1.5	1.8	2.2	2.7	1.9	2.8
Length x width, m	EN 1848-2	25 x 2.1	20 x 2.1	15 x 2.1	15 x 2.1	20 x 2.1	15 x 2.1
Tensile strength L / T, N/50 mm	EN 12311-2	≥1100 / ≥900				≥1100 / ≥900	
Elongation at break, %	EN 12311-2	≥18				≥18	
Tear resistance, N	EN 12310-2	≥150				≥150	
Resistance to static load, kg	EN 12730 B	≥20				≥20	
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥600 / ≥700	≥800 / ≥1000	≥1100 / ≥1500	≥1400 / ≥1800	≥800 / ≥1000	≥1400 / ≥1800
Peel resistance of joints, N/50 mm	EN 12316-2	≥300				≥300	
Shear resistance of joints, N/50 mm	EN 12317-2	≥700				≥700	
Foldability at low temperature, °C	EN 495-5	≤-30				≤-30	
Watertightness, kPa	EN 1928-2 B	≥10				≥10	

LOGICROOF V-GR

GLASS FIBER REINFORCED PVC MEMBRANE FOR SINGLE-PLY WATERPROOFING OF BALLASTED AND INVERTED NON-EXPOSED FLAT ROOFS

LOGICROOF V-GR is a premium quality glass fiber reinforced PVC membrane, which is used for single-ply waterproofing of ballasted and inverted non-exposed flat roofs. It is loosely laid, while the overlaps are welded with hot air.

LOGICROOF V-GR is a multi-layer synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). Glass fiber reinforcement provides an increased puncture resistance and dimensional stability.



LOGICROOF V-GR FB

GLASS FIBER REINFORCED PVC MEMBRANE WITH LAMINATED GEOTEXTILE FLEECE ON THE BOTTOM FOR SINGLE-PLY WATERPROOFING OF EXPOSED FLAT ROOFS

LOGICROOF V-GR FB is a premium quality PVC membrane with laminated geotextile fleece on the bottom surface, which is designed for use in fully adhered systems. The material is used for single-ply waterproofing of exposed flat roofs. It is fastened with glue, the overlaps should be welded with hot air (each roll has a fleece free edge on one side).

LOGICROOF V-GR FB is a polyester reinforced multi-layer synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P).

A variation with a non-slippery textured surface of the top layer LOGICROOF V-GR FB (T) is available.



PROPERTIES	TEST METHOD	LOGICROOF V-GR			LOGICROOF V-GR FB	
Thickness, mm	EN 1849-2	1.5	2.0	2.4	1.5	2.0
Mass per unit area, kg/m ²	EN 1849-2	1.8	2.5	3.2	1.9	2.8
Length x width, m	EN 1848-2	20 x 2.1	15 x 2.1	15 x 2.1	20 x 2.1	15 x 2.1
Tensile strength L / T, N/50 mm	EN 12311-2	≥800 / ≥600			≥800 / ≥600	
Elongation at break, %	EN 12311-2	≥200			≥150	
Tear resistance, N	EN 12310-2	≥180			≥200	
Resistance to static load, kg	EN 12730 B	≥20			≥20	
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥800 / ≥1000	≥1400 / ≥1800	≥1500 / ≥1900	≥800 / ≥1000	≥1400 / ≥1800
Peel resistance of joints, N/50 mm	EN 12316-2	≥350			≥350	
Shear resistance of joints, N/50 mm	EN 12317-2	≥700			≥700	
Foldability at low temperature, °C	EN 495-5	≤-25			≤-25	
Watertightness, kPa	EN 1928-2 B	≥10			≥10	

MEMBRANES FOR UNDERGROUND WATERPROOFING

LOGICBASE V-SL

NON-REINFORCED PVC MEMBRANE FOR UNDERGROUND WATERPROOFING

LOGICBASE V-SL is a premium quality PVC membrane, which is used for the waterproofing of tunnels, foundations, underground parts of buildings and structures. Sheets of the membrane are welded together with hot air. On the walls and tunnel arches, the material is fastened mechanically with PVC rondels.

LOGICBASE V-SL is a non-reinforced synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). Yellow signal layer on the top surface of the material allows detecting waterproofing layer damage promptly and easily. The advantages of the material are durability, high strength and elasticity, resistance to mechanical impact and high chemical stability.

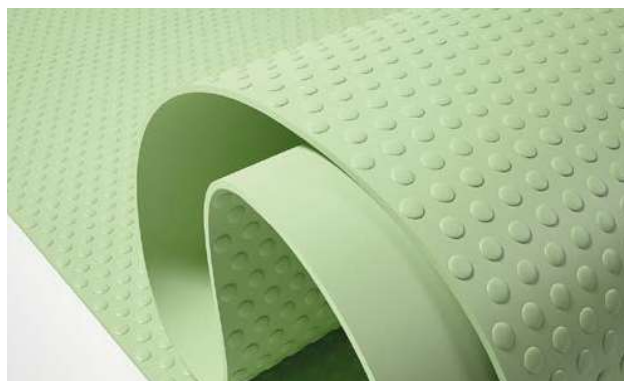


LOGICBASE V-ST

NON-REINFORCED PVC MEMBRANE USED AS THE SECOND LAYER IN DOUBLE-LAYER PVC WATERPROOFING SYSTEMS WITH VACUUM QUALITY CONTROL

LOGICBASE V-ST is a special PVC membrane, which is used for the waterproofing of tunnels, foundations, underground parts of buildings and structures as the second layer in double-layer PVC waterproofing systems with vacuum quality control. It is also used as a protective layer for PVC waterproofing systems. The material is welded with hot air to the main waterproofing layer. Overlap seams are welded by hot air welding equipment.

LOGICBASE V-ST is a non-reinforced synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). A specially textured surface of the material prevents two membranes of a double-layer waterproofing system from sticking together during vacuum quality control.



PROPERTIES	TEST METHOD	LOGICBASE V-SL		LOGICBASE V-ST
Thickness, mm	EN 1849-2	1.5	2.0	1.6
Mass per unit area, kg/m ²	EN 1849-2	2.0	2.7	1.9
Length x width, m	EN 1848-2	20 x 2.1		20 x 2.1
Tensile strength L / T, MPa	EN 12311-2	≥16 / ≥15		≥14 / ≥11
Elongation at break, %	EN 12311-2	≥300		≥300
Tear resistance, N	EN 12310-2	≥150		≥150
Resistance to static load, kg	EN 12730 B	≥20		≥20
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥700 / ≥1000	≥1400 / ≥1800	≥700 / ≥1000
Peel resistance of joints, N/50 mm	EN 12316-2	≥300		≥300
Shear resistance of joints, N/50 mm	EN 12317-2	≥700		≥700
Foldability at low temperature, °C	EN 495-5	≤-30		≤-30
Watertightness, kPa	EN 1928-2 B	≥60		≥60

LOGICBASE V-PT

NON-REINFORCED PVC MEMBRANE USED AS A PROTECTIVE LAYER FOR PVC WATERPROOFING SYSTEMS

LOGICBASE V-PT is a special PVC membrane, which is used as a protective layer for PVC waterproofing systems. The material is welded with hot air to the main waterproofing layer at certain points along the whole area. Overlap seams are welded by hot air welding equipment.

LOGICBASE V-PT is a non-reinforced synthetic membrane produced by co-extrusion on the basis of premium quality plasticized polyvinyl chloride (PVC-P). High impact resistance of the material ensures a reliable protection for the main waterproofing layer from mechanical damage during construction works.



ECOBASE V-UV

NON-REINFORCED SINGLE-LAYER PVC MEMBRANE FOR WATERPROOFING OF UNDERGROUND STRUCTURES AND DAMAGE RESERVOIRS

ECOBASE V-UV is a high-quality PVC membrane, which is used for the waterproofing of foundations, underground parts of buildings and structures. It is also used for the waterproofing of artificial reservoirs. The membrane sheets are welded together with hot air. On the walls and tunnel arches, the material is fastened mechanically with PVC rondels.

ECOBASE V-UV is a non-reinforced single-layer synthetic membrane produced by co-extrusion on the basis of high-quality plasticized polyvinyl chloride (PVC-P).

Due to UV resistance, it can be used for exposed application.



PROPERTIES	TEST METHOD	LOGICBASE V-PT		ECOBASE V-UV	
Thickness, mm	EN 1849-2	1.5	2.0	1.5	2.0
Mass per unit area, kg/m ²	EN 1849-2	2.0	2.6	2.0	2.6
Length x width, m	EN 1848-2	20 x 2.1		20 x 2.1	
Tensile strength L / T, MPa	EN 12311-2	≥12 / ≥10		≥12 / ≥10	
Elongation at break, %	EN 12311-2	≥200		≥200	
Tear resistance, N	EN 12310-2	≥150		≥150	
Resistance to static load, kg	EN 12730 B	≥20		≥20	
Resistance to dynamic impact on a rigid / soft substrate, mm	EN 12691	≥700 / ≥1000	≥1400 / ≥1800	≥700 / ≥1000	≥1400 / ≥1800
Peel resistance of joints, N/50 mm	EN 12316-2	≥300		≥300	
Shear resistance of joints, N/50 mm	EN 12317-2	≥700		≥600	
Foldability at low temperature, °C	EN 495-5	≤-25		≤-25	
Watertightness, kPa	EN 1928-2 B	≥60		≥60	

TPO MEMBRANES

MEMBRANES FOR ROOFING

SINTOFOIL RT

A synthetic waterproofing membrane produced by co-extruding a UV resistant elastomerised TPO/FPA thermoplastic olefin and flexible polypropylene alloy with a polyester net reinforcing mat. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%. It is also available in the fire resistant versions (external fire behaviour), in Broof class according to EN 13501-5: SINTOFOIL RT/FR1, SINTOFOIL RT/FR2, SINTOFOIL RT/FR3 (consult the specific data sheet - SINTOFOIL RT/FR). SINTOFOIL RT membranes comply with CE marking requirements, if applicable.



PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
SRI – Solar Reflectance Index, %	ASTM Standard E1980	102 ⁽¹⁾			
Tensile strength L/T, N/50 mm	EN 12311-2	1100			
Elongation at break L/T, %	EN 12311-2	25			
Dimensional stability, %	EN 1107-2	≤ 0,5			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	550 / 650			
Water vapour permeability (resistance factor μ)	EN 1931	50.000			
Resistance to static loading, kg	EN 12730/B	≥ 25			
Resistance to impact, mm	EN 12691/B	≥ 1200			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Reaction to fire	EN 13501-1	Class E			
Behaviour to external fire	EN 13501-5	Broof ⁽²⁾			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(1) Reflecta White version

(2) Also available in the fire resistant versions (external fire behaviour), in Broof class according to EN 13501-5: SINTOFOIL RT/FR2, SINTOFOIL RT/FR3

SINTOFOIL RT FB

A synthetic waterproofing membrane produced by co-extruding a UV resistant elastomeric TPO/FPA thermoplastic olefin and flexible polypropylene alloy, with a polyester net reinforcement bonded on the lower face with nonwoven polyester fabric. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%.

SINTOFOIL RT FB membranes comply with CE marking requirements, if applicable..



SPECIFIC USE:

- Mechanically retained waterproofing on exposed roofs.
- Waterproofing layers applied independently under heavy-duty fixed or movable protection for: roofing exposed to foot traffic; inverted roofs.

PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
Tensile strength L/T, N/50 mm	EN 12311-2	1100 / 1100			
Elongation at break L/T, %	EN 12311-2	25 / 25			
Dimensional stability, %	EN 1107-2	≤ 0.5 / 0.5			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	550 / 650 (*)			
Water vapour permeability (resistance factor μ)	EN 1931	50.000			
Resistance to static loading, kg	EN 12730/B	≥ 25 (*)			
Resistance to impact, mm	EN 12691/B	≥ 1800 (*)			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class F			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(*) The values indicated refer to the TPO / FPA membrane without nonwoven polyester fabric backing, except for the values marked with an asterisk (*), that refer to the finished product.

SINTOFOIL RG

A synthetic waterproofing membrane produced by co-extruding a UV resistant elastomerised TPO/FPA thermoplastic olefin and flexible polypropylene alloy with a fibreglass reinforcing mat that makes it dimensionally stable. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%.

It is also available in the fire resistant versions (external fire behaviour), in Broof class according to EN 13501-5: SINTOFOIL RG/FR1, SINTOFOIL RG/FR2, SINTOFOIL RG/FR3, SINTOFOIL RG/FR4 (consult the specific data sheet - SINTOFOIL RG/FR). SINTOFOIL RG membranes comply with CE marking requirements, if applicable.



PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
SRI – Solar Reflectance Index, %	ASTM Standard E1980	102 ⁽¹⁾			
Tensile strength L/T, N/50 mm	EN 12311-2	600 / 550	650 / 600	750 / 750	800 / 800
Elongation at break L/T, %	EN 12311-2	700 / 700			
Dimensional stability, %	EN 1107-2	≤ 0.1			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	390 / 290	450 / 400	500 / 450	600 / 550
Water vapour permeability (resistance factor μ)	EN 1931	50.000			
Resistance to static loading, kg	EN 12730/B	≥ 25			
Resistance to impact, mm	EN 12691/B	≥ 1000			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class E			
Behaviour to external fire	EN 13501-5	Broof ⁽²⁾			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(1) Reflecta White version

(2) Also available in the fire resistant versions (external fire behaviour), in Broad class according to EN 13501-5: SINTOFOIL RG/FR 1, SINTOFOIL RG/FR 2, SINTOFOIL RG/FR3, SINTOFOIL RG/FR4.

SINTOFOIL RG FB

A synthetic waterproofing membrane produced by co-extruding a UV resistant elastomeric TPO/FPA thermoplastic olefin and flexible polypropylene alloy, with a fibreglass reinforcement bonded on the lower face with nonwoven polyester fabric that makes it dimensionally stable. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is also available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%. SINTOFOIL RG FB membranes comply with CE marking requirements, if applicable.



SPECIFIC USE:

- Waterproofing layers applied independently under heavy-duty fixed or movable protection for: roofing exposed to foot and vehicular traffic; roof gardens.
- Mechanically retained waterproofing for: exposed roofs.
- Implementation of roofing systems in total adhesion by means of gluing.

PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
Tensile strength L/T, N/50 mm	EN 12311-2	600 / 550	650 / 600	750 / 750	800 / 800
Elongation at break L/T, %	EN 12311-2	700 / 700			
Dimensional stability, %	EN 1107-2	≤ 0.1			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	500/450 (*)	650/600 (*)	650/600 (*)	850/800 (*)
Water vapour permeability (resistance factor μ)	EN 1931	50.000			
Resistance to static loading, kg	EN 12730/B	≥ 25 (*)			
Resistance to impact, mm	EN 12691/B	≥ 1000 (*)			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class F			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(*) The values indicated refer to the TPO / FPA membrane without nonwoven polyester fabric backing, except for the values marked with an asterisk (*), that refer to the finished product.

SINTOFOIL ST

A synthetic waterproofing membrane produced by co-extruding a uniform UV resistant elastomeric TPO/FPA thermoplastic olefin and flexible polypropylene alloy.

The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent. SINTOFOIL ST membranes comply with CE marking requirements, if applicable.

Sintofoil membranes are designed for easy bonding with a hot air gun, as no adhesives or other materials of any kind are required.

SPECIFIC USE:

- Waterproofing layers applied independently under heavy-duty fixed or movable protection for roofing exposed to foot traffic and roof gardens.
- Mechanically fastened waterproofing on exposed roofs.



PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
Tensile strength L/T, N/mm ²	EN 12311-2	16 / 15			
Elongation at break L/T, %	EN 12311-2	700 / 700			
Dimensional stability, %	EN 1107-2	≤ 0.5			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	330 / 240	450 / 400	550 / 500	650 / 600
Water vapour permeability (resistance factor μ)	EN 1931	90.000			
Resistance to static loading, kg	EN 12730/B	≥ 25			
Resistance to impact, mm	EN 12691/B	≥ 1000			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class E			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			
Contact with drinking water (DW)	Contact with drinking water (DW) Italian Ministerial Decree 26-04-93 n. 220 - O.J. no. 162 / 13-07-1993 and subsequent amendments	Suitable			

SINTOFOIL FB

A synthetic waterproofing membrane produced by co-extruding a uniform UV resistant elastomerised TPO/FPA thermoplastic olefin and flexible polypropylene alloy, bonded on the lower face to a nonwoven polyester fabric reinforcing mat. The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent.

It is available in BIANCO REFLECTA version, manufactured with the upper side of the membrane (top) in WHITE REFLECTA colour, by means of a treatment developed in mass in the entire layer that covers the top of the reinforcement. This process enhances the reflectance and emission features giving the roof a Solar Reflectance Index (SRI) value that reaches 102%. SINTOFOIL FB membranes comply with CE marking requirements, if applicable.



SPECIFIC USE:

- Adhesive bonded waterproofing on exposed roofing, applied with specific FB/SF ADHESIVE.
- Refurbishment of waterproof bitumen covering materials.
- Waterproofing layers applied independently under heavy-duty fixed or movable protection for: roofing exposed to foot traffic and roof gardens.
- Mechanically fastened waterproofing on exposed roofs.

PROPERTIES	TEST METHOD	PERFORMANCE			
Standard thickness, mm	EN 1849-2	1,2	1,5	1,8	2,0
Tensile strength L/T, N/mm ²	EN 12311-2	16 / 15			
Elongation at break L/T, %	EN 12311-2	700 / 700			
Dimensional stability, %	EN 1107-2	≤ 0.5			
Cold flexibility, °C	EN 495/5	≤ -40			
Tear resistance L/T, N	EN 12310/1	450/400 (*)	650/600 (*)	800/750 (*)	900/850 (*)
Water vapour permeability (resistance factor μ)	EN 1931	90.000			
Resistance to static loading, kg	EN 12730/B	≥ 25 (*)			
Resistance to impact, mm	EN 12691/B	≥ 1800 (*)			
Hail resistance, m/s	EN 13583	≥ 30			
Water tightness (60 kPa)	EN 1928	Absolute			
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)			
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58			
Resistance to artificial UV light	EN 1297-5000 h	No surface damage or significant changes in cold flexibility as per EN 495/5			
Change in tensile strength, Δ%	EN 12311-2	-5			
Change in elongation at break, Δ%	EN 12311-2	-5			
Reaction to fire	EN 13501-1	Class F			
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant			
Root resistance	EN 13948	Passes the test			

(*) The values indicated refer to the TPO / FPA membrane without nonwoven polyester fabric backing, except for the values marked with an asterisk (*), that refer to the finished product.

MEMBRANES FOR UNDERGROUND WATERPROOFING

SINTOFOIL ST WPS

A synthetic waterproofing membrane produced by co-extruding a uniform highly flexible elastomeric polyolefin alloy.

The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent. It is not UV resistant. SINTOFOIL ST WPS membranes comply with CE marking requirements, if applicable.

SINTOFOIL TPO/FPA membranes are welded by hot air welding equipment, such as manual or automatic hot air welding machines with temperature control.

SPECIFIC USE:

- SINTOFOIL ST WPS membrane is recommended for waterproofing of underground structures: foundations, retaining walls, natural and artificial tunnels.



PROPERTIES	TEST METHOD	PERFORMANCE		
Standard thickness, mm	EN 1849-2	1,5	1,8	2,0
Density, kg/m ²	EN 1849-2	1,35	1,62	1,80
Tensile strength L/T, N/50 mm	12311-2/ISO 527	15 / 15		
Elongation at break L/T, %	12311-2/ISO 527	600 / 600		
Dimensional stability, %	EN 1107-2	≤ 0,5		
Cold flexibility, °C	EN 495/5	≤ -40		
Tear resistance L/T, N	EN 12310/1	450 / 400	550 / 500	650 / 600
Resistance to static loading, kg	EN 12730/B	≥ 25		
Water tightness (60 kPa)	EN 1928	Absolute		
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)		
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58		
Durability: Waterproofing after thermal ageing	EN 1926 EN 1928	Passes the test at 60 kPa		
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant		
Root resistance	EN 13948	Passes the test		

PRODUCTION STANDARDS				
Thickness (*)	mm	1,5	1,8	2,0
Width	m	2.10	2.10	2.10
Length (*)	m	25	20	20
Color (*)	Beige / Black			

(*) Different thicknesses, lengths and colors are available on demand and for minimum quantities.

SINTOFOIL ST WPS PT

A synthetic membrane produced by co-extruding a uniform highly flexible elastomerised polyolefin alloy. It is not UV resistant.

It is recommended as a protective layer of synthetic waterproofing systems in TPO/FPA for underground works.

Sintofoil membranes are designed for easy bonding with a hot air gun, as no adhesives or other materials of any kind are required.

SINTOFOIL TPO/FPA membranes are welded by hot air welding equipment, such as manual or automatic hot air welding machines with temperature control.

SPECIFIC USE:

- The SINTOFOIL ST WPS PT membrane is suitable for the protection of waterproofing systems for underground works: foundations, retaining walls.



PROPERTIES	TEST METHOD	PERFORMANCE
Standard thickness, mm	EN 1849-2	2,0
Density, kg/m ²	EN 1849-2	1,80
Tensile strength L/T, N/50 mm	12311-2/ISO 527	15 / 15
Elongation at break L/T, %	12311-2/ISO 527	600 / 600
Dimensional stability, %	EN 1107-2	≤ 0.5
Cold flexibility, °C	EN 495/5	≤ -40
Tear resistance L/T, N	EN 12310/1	650 / 600
Resistance to static loading, kg	EN 12730/B	≥ 25
Water tightness (60 kPa)	EN 1928	Absolute
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58
Durability: Waterproofing after thermal ageing	EN 1926 EN 1928	Passes the test at 60 kPa
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant
Root resistance	EN 13948	Passes the test

PRODUCTION STANDARDS		
Thickness (*)	mm	2.0
Width	m	2.10
Length (*)	m	20
Color (*)		Black

(*) Different thicknesses, lengths and colors are available on demand and for minimum quantities.

SINTOFOIL ST WPS ST

A non-reinforced synthetic waterproofing membrane produced by co-extruding a uniform highly flexible elastomerised polyolefin alloy.

It is used for waterproofing of tunnels, foundations, underground parts of buildings and structures as a second layer in double-layer waterproofing systems with vacuum quality control. A specially textured surface of the material prevents two membranes of a double-layer waterproofing system from sticking together during the vacuum quality control. It is not UV resistant.

SINTOFOIL ST WPS ST membranes comply with CE marking requirements, if applicable.

SINTOFOIL TPO/FPA membranes are welded by hot air welding equipment, such as manual or automatic hot air welding machines with temperature control.



SPECIFIC USE:

- SINTOFOIL ST WPS ST membrane is recommended for waterproofing of structures: foundations, retaining walls.

PROPERTIES	TEST METHOD	PERFORMANCE
Standard thickness, mm	EN 1849-2	2,0
Appearance of upper surface		Structured
Density, kg/m ²	EN 1849-2	1,80
Tensile strength L/T, N/50 mm	12311-2/ISO 527	15 / 15
Elongation at break L/T, %	12311-2/ISO 527	600 / 600
Dimensional stability, %	EN 1107-2	≤ 0.5
Cold flexibility, °C	EN 495/5	≤ -40
Tear resistance L/T, N	EN 12310/1	650 / 600
Resistance to static loading, kg	EN 12730/B	≥ 25
Water tightness (60 kPa)	EN 1928	Absolute
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58
Durability: Waterproofing after thermal ageing	EN 1926 EN 1928	Passes the test at 60 kPa
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant
Root resistance	EN 13948	Passes the test

PRODUCTION STANDARDS		
Thickness (*)	mm	2.0
Width	m	2.10
Length (*)	m	20
Color (*)		Black

(*) Different thicknesses, lengths and colors are available on demand and for minimum quantities.

SINTOFOIL RG WPS

A synthetic waterproofing membrane produced by co-extruding a uniform highly flexible elastomeric polyolefin alloy with a fiberglass reinforcing mat that makes it dimensionally stable.

The membrane features contrasting colours on its upper and lower faces, providing a signal layer so that any damage occurring during or after installation will be immediately apparent. It is not UV resistant. SINTOFOIL RG WPS membranes comply with CE marking requirements, if applicable.

Sintofoil membranes are designed for easy bonding with a hot air gun, as no adhesives or other materials of any kind are required.

SINTOFOIL TPO/FPA membranes are welded by hot air welding equipment, such as manual or automatic hot air welding machines with temperature control.



SPECIFIC USE:

- SINTOFOIL RG WPS membrane is recommended for waterproofing of underground structures: foundations, retaining walls.

PROPERTIES	TEST METHOD	PERFORMANCE		
Standard thickness, mm	EN 1849-2	1,5	1,8	2,0
Density, kg/m ²	EN 1849-2	1,37	1,64	1,82
Tensile strength L/T, N/50 mm	12311-2/ISO 527	650 / 600	750 / 750	800 / 800
Elongation at break L/T, %	12311-2/ISO 527	600 / 600		
Dimensional stability, %	EN 1107-2	≤ 0.1		
Cold flexibility, °C	EN 495/5	≤ -40		
Tear resistance L/T, N	EN 12310/1	450 / 400	500 / 450	600 / 550
Resistance to static loading, kg	EN 12730/B	≥ 25		
Water tightness (60 kPa)	EN 1928	Absolute		
Joint strength: Tensile strength, N/cm	EN 12317-2	Compliant (specimen fails outside bond area)		
Joint strength: Peeling, N/cm	EN 12316-2	≥ 58		
Durability: Waterproofing after thermal ageing	EN 1926 EN 1928	Passes the test at 60 kPa		
Resistance to algae and microorganisms	ISO 846 Level 2	Compliant		
Root resistance	EN 13948	Passes the test		

PRODUCTION STANDARDS				
Thickness (*)	mm	1,5	1,8	2,0
Width	m	2.10	2.10	2.10
Length (*)	m	25	20	20
Color (*)	Beige / Black			

(*) Different thicknesses, lengths and colors are available on demand and for minimum quantities.

HDPE MEMBRANES

ULTRABASE PA

PRE-APPLIED HDPE MEMBRANE THAT BONDS TO POURED CONCRETE

ULTRABASE PA is a high-performance pre-applied HDPE membrane designed for waterproofing of foundations, tunnels and other engineering structures. The material represents composite sheets of thick HDPE film with a special adhesive compound that reacts with a wet mortar and gives an excellent integral bonding. The waterproofing membrane bonds directly to the concrete, thus sealing it and preventing any ingress of water around the structure, even in cases of soil sedimentation. ULTRABASE PA membrane does not require protection before backfilling.

Pre-applied HDPE membrane ULTRABASE PA is used for waterproofing of foundations, tunnels, underground parts of buildings and structures in pre-applied systems with liquid concrete pouring on top of the material.



ULTRABASE PA Sand Finish

PRE-APPLIED HDPE MEMBRANE THAT BONDS TO POURED CONCRETE

ULTRABASE PA (Sand finish) is a high-performance pre-applied HDPE membrane designed for waterproofing of foundations, tunnels, and other engineering structures. The material represents composite sheets of thick HDPE film with a special pressure sensitive adhesive compound protected with sand that reacts with a wet mortar and gives an excellent integral bonding. The waterproofing membrane bonds directly to the concrete, thus sealing it and preventing any ingress of water around the structure, even in cases of soil sedimentation.

Pre-applied HDPE membrane ULTRABASE PA (Sand finish) is used for waterproofing of foundations, tunnels, underground parts of buildings and structures in pre-applied systems with liquid concrete pouring on top of the material.



PROPERTIES	TEST METHOD	ULTRABASE PA	ULTRABASE PA Sand Finish
Thickness, mm	-	1.2; 1.5; 1.8	1.2; 1.5; 1.8
Length x width, m	-	20 x 1.2, 20 x 1.5, 20 x 2.0	20 x 1.5, 20 x 2.0, 20 x 3.0
Tensile strength L / T, MPa	ASTM D 412 -2016	>25±2	>25±2
Elongation at break, %	ASTM D 412 -2016	≥620	≥620
Nail tear resistance, N	ASTM E154	≥400	≥400
Puncture resistance, N	ASTM E 154	>950	>950
Heat resistance at 70°C for 2 hours	-	Pass	Pass
Foldability at low temperature, °C	-	≤-25	≤-25
Lap Adhesion, N/m	ASTM D 1876	>1500	>1500
Resistance to Hydrostatic pressure, m	ASTM D 5385	>70	>70
Peeling strength with post-cast concrete, N/m	ASTM D 903	≥1500	≥1500

DIMPLED (DRAINAGE) MEMBRANES

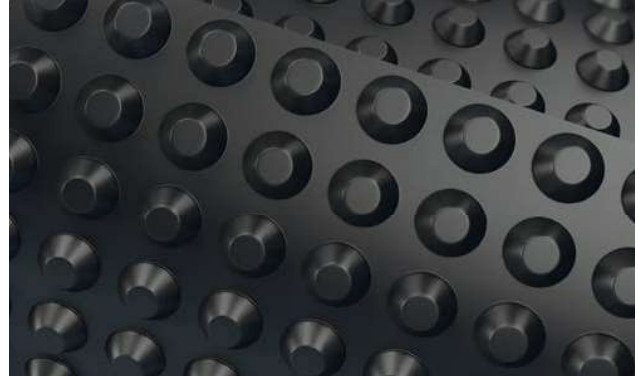
PLANTER standard

DIMPLED HDPE MEMBRANE FOR PROTECTION OF THE WATERPROOFING LAYER, INSTALLATION OF A PREPARATION LAYER FOR FOUNDATION SLABS

PLANTER standard is a profiled membrane produced by extrusion method on the basis of high-density polyethylene (HDPE), which is used for:

- protection of the waterproofing layer from mechanical damage;
- installation of a preparation layer for foundation slabs;
- protection of the foundation from capillary moisture;
- sanitation of damp walls.

The material is very lightweight and easy to install, herein it is featured by high strength properties. PLANTER is resistant to chemicals, mould and bacteria, roots of plants and ultraviolet radiation. The material is covered with conic studs of 8 mm height and 10 mm in diameter. The membrane is fastened mechanically, the overlaps are sealed with NICOBAND self-adhesive tape.



PLANTER geo

DIMPLED HDPE MEMBRANE WITH GEOTEXTILE FOR THE INSTALLATION OF DRAINAGE FOR FOUNDATIONS, BALLASTED AND GREEN ROOFS

PLANTER geo is a double-layer profiled membrane. The first layer of the material is produced by extrusion method on the basis of high-density polyethylene (HDPE) covered with conic studs 8 mm height and 10 mm in diameter. The second layer is a thermally bounded geotextile glued to the membrane.

The material is used for:

- installation of vertical and horizontal drainage for foundations;
- installation of a drainage, protective and separating layer for ballasted and green roofs.

The material is very lightweight and easy to install, herein it is featured by high strength properties. PLANTER is resistant to chemicals, mould and bacteria, roots of plants and ultraviolet radiation. The membrane is fastened mechanically, the overlaps are sealed with NICOBAND self-adhesive tape.



PROPERTIES	TEST METHOD	PLANTER standard	PLANTER geo
Compressive strength, kPa	EN 604	≥280	≥350
Weight per unit area, kg/m ²	EN 1849-2	0.55	0.65
Length x width, m	EN 1848-2	20 x 2.0	15 x 2.0
Tensile strength L / T, N/50 mm	EN 12311-2	≥280 / ≥280	≥420 / ≥420
Elongation at break, %	EN 12311-2	≥20	≥30
Stud height, mm	EN 1849-2	8	8
Water flow rate, l/m ² *sec	-	-	5.1

CONSTRUCTION FILMS



DIFFUSION MEMBRANES

TECHNONICOL ALPHA TOP

PROFESSIONAL NON-WOVEN DIFFUSION MEMBRANE WITH AN ADSORPTION FEATURE

TECHNONICOL ALPHA TOP diffusion membrane is intended for the protection of the thermal insulation layer of pitched roofs and ventilated facade systems from harmful impacts of water, wind and dust. Due to high vapor permeability, the membrane contributes to the removal of excess moisture from building structures thus increasing its service life without repair and cutting down energy costs.

It has the following advantages:

- Ability to adsorb and retain moisture during periods of high humidity and remove the accumulated moisture in a dry season – it is suitable for use in regions with large differences in humidity;
- Thanks to its high strength, the membrane can withstand additional mechanical loads and the weight of a roofer;
- The marking lines on the top side of the material make installation easier, especially in the zones of overlapping;
- Anti-glare matt surface ensures roofing work safety;
- Resistant to molds and bacteria.



TECHNONICOL ALPHA VENT

THREE-LAYER DIFFUSION MEMBRANE WITH LONGITUDINAL SELF-ADHESIVE OVERLAP STRIP

TECHNONICOL ALPHA VENT diffusion membrane is intended for the protection of the thermal insulation layer of pitched roofs and ventilated facade systems from harmful impacts of water, wind and dust. Due to the high vapor permeability, the membrane contributes to the removal of excess moisture from building structures thus increasing its service life without repair and cutting down energy costs.

It has the following advantages:

- A longitudinal self-adhesive overlap strip increases convenience and speed of application;
- Available in a wide range of surface densities to fit any project and area of application;
- The marking lines on the top side of the material make installation easier, especially in the zones of overlapping;
- Anti-glare matt surface ensures roofing work safety;
- Resistant to molds and bacteria.



PROPERTIES	TECHNONICOL ALPHA TOP	TECHNONICOL ALPHA VENT 180	TECHNONICOL ALPHA VENT 150	TECHNONICOL ALPHA VENT 130	TECHNONICOL ALPHA VENT 110
Surface density, g/m ²	190±5%	180±5%	150±5%	130±5%	110±5%
Tensile strength L / T, N/50mm	≥350 / ≥200	≥280 / ≥190	≥220 / ≥160	≥200 / ≥130	≥140 / ≥70
Vapor permeability, g/m ² ×24 h	-	≥1600	≥1600	≥1600	≥1400
Vapor permeability, Sd coefficient, m	≤0.150	≤0.020	≤0.020	≤0.020	≤0.015
Water resistance at a pressure of 60 kPa applied for 24 hours	Class W1	Class W1	Class W1	Class W1	Class W1
UV resistance, months	≥6	≥3	≥3	≥3	≥2
Length, m	50±5%	50±5%	50±5%	50±5%	50±5%
Width, m	1.5±1%	1.5±1%	1.5±1%	1.5±1%	1.5±1%

VAPOR BARRIER FILMS

TECHNONICOL ALPHA BARRIER 4.0

FOUR-LAYER ENERGY-SAVING REINFORCED VAPOR BARRIER FILM WITH ALUMINIUM COATING

TECHNONICOL ALPHA BARRIER 4.0 film is used to create a vapor barrier on pitched and flat roofs, floors and walls of frame houses. It can be applied in buildings with any interior humidity conditions, including humid and wet interiors. TECHNONICOL ALPHA BARRIER 4.0 is a four-layer energy-saving reinforced polyethylene film with an aluminium coating protected with a transparent polyester coating. It has the following advantages:

- The aluminium layer provides excellent protection against water vapor ingress into the thermal insulation and structure in general thus increasing its service life without repair;
- It also contributes to energy saving while reflecting a significant portion of thermal energy inside the house, thus reducing air conditioning and heating costs;
- Mesh reinforcement and increased surface density ensure high strength of the film, enabling it to withstand loads of thermal insulation and shrinkage of structural elements;
- The material demonstrates outstanding elasticity even at sub-zero temperatures.



TECHNONICOL ALPHA BARRIER 3.0

THREE-LAYER TRANSLUCENT REINFORCED VAPOR BARRIER FILM

TECHNONICOL ALPHA BARRIER 3.0 film is used to create a vapor barrier on pitched roofs and walls of frame houses. It can be applied in buildings with dry and normal interior humidity conditions.

TECHNONICOL ALPHA BARRIER 3.0 is a three-layer translucent reinforced polyethylene film with a non-woven underlayer. It has the following advantages:

- Thanks to its translucent structure, the film allows timely detection and correction of thermal insulation defects and provides visual quality control of performed works and conditions of utilities;
- The marking lines on the top side of the material make installation easier, especially in the zones of overlapping;
- Mesh reinforcement and increased surface density ensure the high strength of the film, enabling it to withstand loads of thermal insulation and shrinkage of structural elements;
- The material demonstrates outstanding elasticity even at sub-zero temperatures.



PROPERTIES	TECHNONICOL ALPHA BARRIER 4.0	TECHNONICOL ALPHA BARRIER 3.0
Surface density, g/m ²	180±5%	100±5%
Tensile strength L / T, N/50 mm	≥450 / ≥450	≥300 / ≥300
Vapor permeability, Sd coefficient, m	150	20
Water resistance at a pressure of 60 kPa applied for 24 hours	Class W1	Class W1
UV resistance, months	≥2	≥2
Length, m	50±5%	50±5%
Width, m	1.5±1%	1.5±1%

TECHNONICOL ALPHA BARRIER 2.0

TWO-LAYER NON-REINFORCED VAPOR BARRIER FILM

TECHNONICOL ALPHA BARRIER 2.0 film is used to create a vapor barrier on pitched roofs and walls of frame houses. It can be applied in buildings with dry and normal interior humidity conditions.

TECHNONICOL ALPHA BARRIER 2.0 is a two-layer non-reinforced film with a non-woven polypropylene base and a polyolefin coating. It has the following advantages:

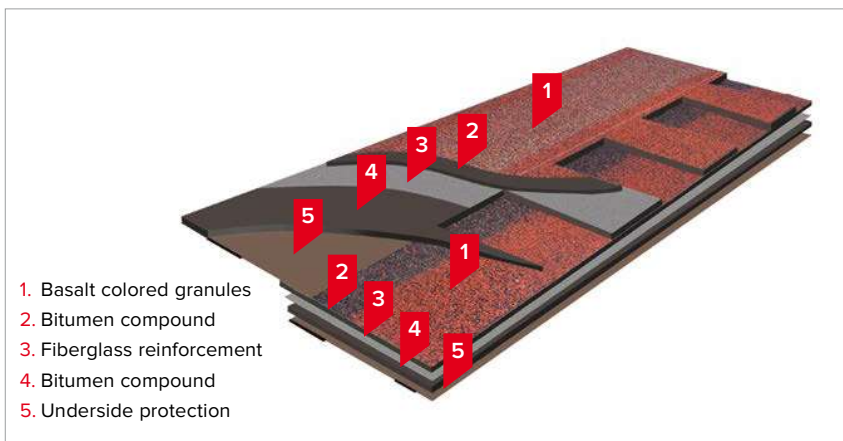
- The marking lines on the top side of the material make installation easier, especially in the zones of overlapping;
- The material demonstrates outstanding elasticity even at sub-zero temperatures.



PROPERTIES	TECHNONICOL ALPHA BARRIER 2.0
Surface density, g/m ²	80±5%
Tensile strength L / T, N/50 mm	≥140 / ≥110
Vapor permeability, Sd coefficient, m	2
Water resistance at a pressure of 60 kPa applied for 24 hours	Class W1
UV resistance, months	≥2
Length, m	50±5%
Width, m	1.5±1%



ROOFING SHINGLES



Roofing shingles are the construction material for the residential roofing application that is used on roof slopes of 12° or greater. It is the smartest solution for a complex or intricate roof design. Bitumen shingles do not fade; they are resistant to harmful environmental impacts, decay, corrosion, fire damage, and, what is very important, they perform well in extreme temperatures. Roofing shingles by TECHNINICOL Corporation are available in a wide variety of original patterns and elegant colors.

TECHNINICOL roofing shingles provide guaranteed comfort and safety to the house. This durable and long-lasting roofing material comes with the manufacturer's warranty of up to 60 years.

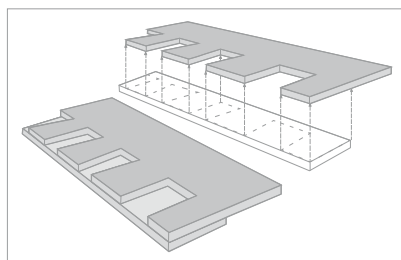
PRODUCTION QUALITY

TECHNINICOL roofing shingles fully comply with EN 544. This European standard for bitumen shingles is known for its strict requirements for the minimum mass of bitumen in products (1300 g/m² – for single-layer roofing shingles and 1500 g/m² – for multilayer ones).

Having a strong faith in Lean manufacturing philosophy, TECHNINICOL Corporation built in quality control of every process at the production site. Our experts thoroughly test raw materials, do sampling inspection, constantly improve in-process control techniques to offer roofing solutions of superior quality. The unique equipment for automatic production of multilayer (laminated) roofing shingles was designed and fabricated by the world's industry leader - Machine Solution Providers (the USA).

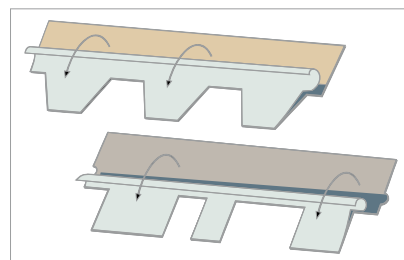
The manufacturer's management system is certified according to ISO 9001:2015, the internationally recognized standard that indicates the company's adherence to quality management practices and minimizes potential risks to customers. Our commitment to quality control, best raw materials and up-to-date technology guarantees years of superior performance to every customer.

MULTILAYER ROOFING SHINGLES



A new roofing standard, which works well with any architectural style imaginable. Each new layer is a new level of reliability. A special cut pattern creates an appealing look of natural handmade tiles like slate or wood shakes. Multilayer roofing shingles is a perfect choice for those, who select superior architectural solutions, safe and durable construction materials. Multilayer coating and its specific components make an absolutely quiet roofing. The noise of rain, wind or birds will not be heard inside the house. TECHNINICOL SHINGLAS multilayer roofing shingles stand out for their enhanced endurance, leak and wind resistance. These reliable roofing materials will serve several generations without any need for reroofing.

SINGLE-LAYER ROOFING SHINGLES



Beauty and lasting quality to inspire the most ambitious design concepts. These exceptional materials represent traditional European roofing shingles with the self-adhesive layer on the bottom surface for a better bonding between shingles on the roof. A high-quality bitumen compound is used to produce these single-layer roofing shingles. Basalt granules of diverse shades add depth and dimension to shingles texture to get an incredible roofing view. Thanks to the weather resistant mineral surface, the color will not fade over time. Roofing shingles provide effective protection from a merciless heat as well as from freezing winds and thus help to maintain a comfortable temperature inside the house all the year round.



ADVANTAGES



RELIABILITY

A safe and durable construction material guarantees a long lifetime to your roof making sure that a few generations of your family will not have to deal with reroofing!



LIGHTWEIGHT

The average weight of roofing shingles is just 13.5 kg/m² compared with 40 kg/m² weight of ceramic tiles. It results in a lower load and greater safety.



QUALITY ASSURANCE

TECHNONICOL Corporation provides a warranty for a period of 30 to 60 years, depending on the collection.



ALL-WEATHER

Our roofing shingles are suitable for any climate with temperatures ranging from -70°C to +80°C.



WIND RESISTANCE

High wind resistance due to a special sealant applied to the bottom of the shingles.



ALGAE RESISTANCE

Algae resistance for 10 years is officially guaranteed.



WIDE COLOR PALETTE

Basalt granules of diverse shades add depth and dimension to the texture of the shingles to get an aesthetic roofing. Thanks to weather resistant mineral surface, the color will not fade over time.



KEEPS YOUR HOME QUIET

The multilayer coating and its specific components make an extremely quiet roofing. The noise of rain, wind or hail hitting the roof will not trouble you. Enjoy peace and quiet in your house!



SINGLE-LAYER ROOFING SHINGLES

CLASSIC AR series EN 544

CLASSIC series covers a wide array of attractive colors and various cutting patterns to suit any taste. A high-grade bitumen compound is used to produce these single-layer roofing shingles of assured quality.



Marble

Plateau

Dune

Glacier



Red

Brown

Green

Grey



Red

Brown

Green

Grey

Black



Red

Brown

Green

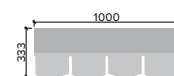
Grey

Red-brown



**30
YEARS**

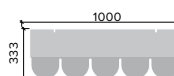
MANUFACTURER'S
WARRANTY



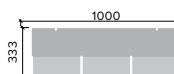
MODERN



SONATA
QUADRILLE



BEAVER
PLUS



TRIO SUPER

TROPIC APP collection EN 544

TROPIC APP collection was specially designed for Asian countries. These shingles are manufactured on the basis of APP modified bitumen compound to provide quick and easy torch-on application. APP polymer and special additives give exceptional physical and mechanical properties to the product including the heat resistance of 150°C. Copper-containing color granules prevent algae growth on the roof.



Red

Brown

Green

Terra



Red

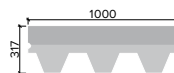
Brown

Green

Terra

**50
YEARS**

MANUFACTURER'S
WARRANTY



HEXAGONAL

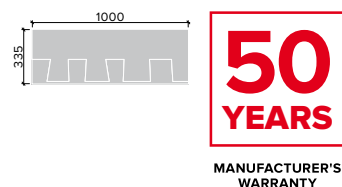


ACCORD

ARCHITECTURAL MULTILAYER ROOFING SHINGLES

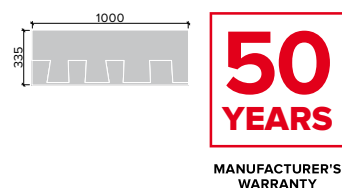
JAZZ collection EN 544

An exquisite color palette, an intricate play of hues and a dramatic 3D profile. A special pattern creates an appealing look of natural handmade tiles like slate or wood shakes. These double-layer roofing shingles have an increased thickness and stand out for their enhanced endurance and wind resistance.



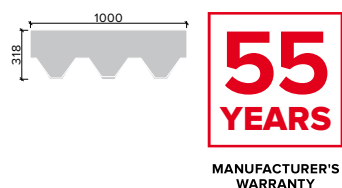
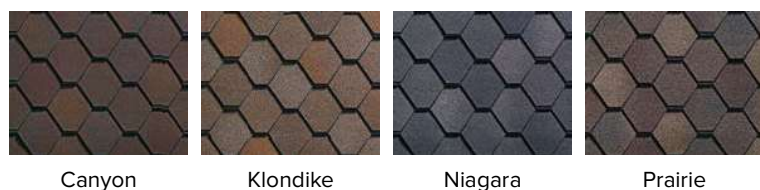
COUNTRY AR collection EN 544

The COUNTRY collection of double-layer roofing shingles comprises incredible color solutions that imitate diverse nature's shades and nuances. Vibrant color blends and expressive shadow lines create a wonderful dimensional visual image.



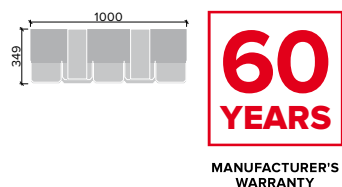
WESTERN collection EN 544

The patent design of this double layer roofing shingles has no analogs in the world. It is an incredible holographic effect embodied in a classic pattern. The WESTERN collection is an inimitable range of colors and excellent performance.



CONTINENT collection EN 544

Triple-layer roofing shingles are an elite material. They resemble antique stone roofing tiles and create an incredible ultra-dimensional look.



TECHNONICOL hip & ridge & starter shingles



Hip & ridge & starter shingles produced with SBS-modified bitumen are extremely flexible. These pre-cut shingles can be separated into three smaller pieces for further application on hips and ridges to add a perfect aesthetic finish to your roof. Maximum protection against wind, snow and rain is provided. Available in a wide range of colors to match any chosen roofing color solution.



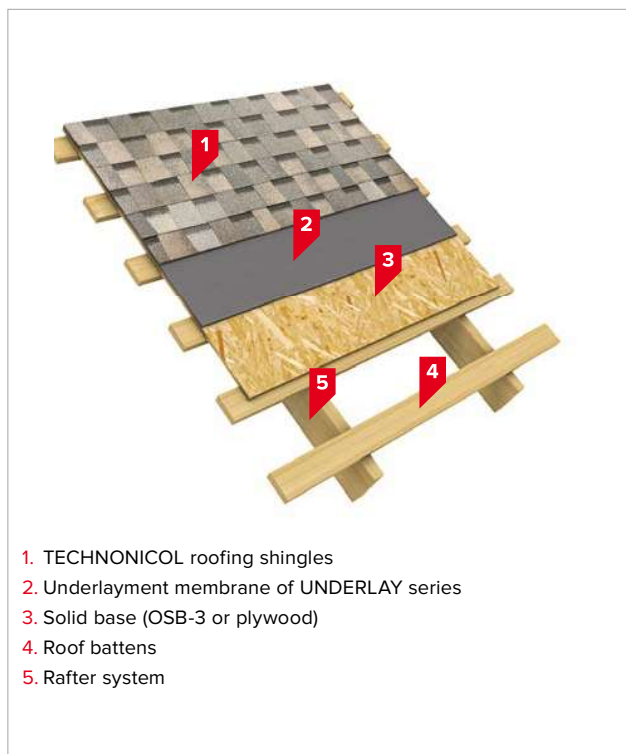
Dimensions: 1 m × 0.25 m.

Package: 12 lin. m (hip & ridge) and 20 lin. m (starter strip).



SYSTEMS

SYSTEM WITHOUT THERMAL INSULATION



SYSTEM WITH TORCHING METHOD



SPECIFICATIONS

PROPERTIES	MULTILAYER				SINGLE-LAYER				
	CONTINENT	WESTERN	JAZZ	COUNTRY	TROPIC APP	CLASSIC			HIP & RIDGE
						MODERN	SONATA QUADRILLE	BEAVER PLUS	
Warranty, years	60	55	50	50	50	30	30	30	-
Base per layer	Fiberglass 110	Fiberglass 110	Fiberglass 90	Fiberglass 90	Fiberglass 100	Fiberglass 100	Fiberglass 100	Fiberglass 100	Fiberglass 110
Thickness per layer, mm	3.2±0.2	3.0±0.2	3.0±0.2	2.7±0.2	2.8±0.2	3.0±0.2	3.1±0.2	2.6±0.2	3.4±0.2
Bundle weight, kg	38.1	26.4	27.0	31.2	25.5	32.1	26.7	27.3	27.5
Weight per sqm, kg/m ²	25.4	17.6	13.5	12.0	8.5	10.7	8.9	9.1	5.5
Coverage per bundle, m ²	1.5	1.5	2.0	2.6	3.0	3.0	3.0	3.0	5.0 12 lin. m (hip & ridge) or 20 lin. m (starter strip)
Quantity on the pallet, m ²	45.0	54.0	84.0	93.6	126.0	108.0	108.0	126.0	200

NOTE: Actual product colors may vary slightly from the colors shown in the catalogue. If color hue is critical for you, please request full-size samples before making your final choice.



Rezekne, Latvia
GORS, THE EMBASSY OF LATGALE



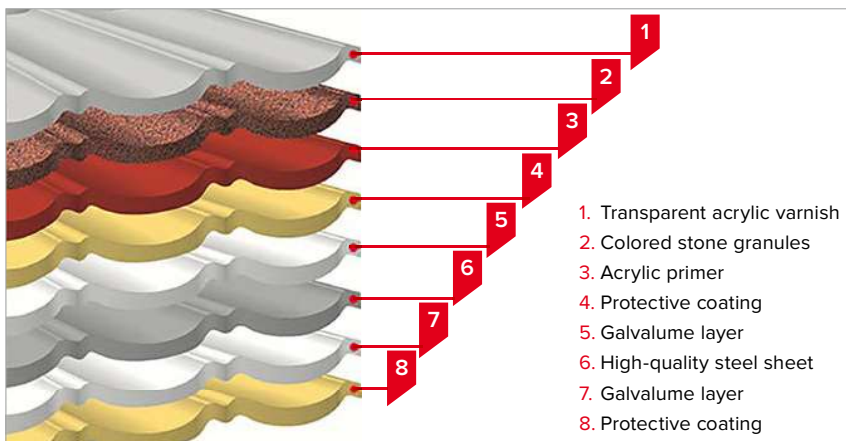
Zlin, Czech Republic
ZELINGER PLAST WERK



Schwechat, Austria
OMV OFFICE BUILDING



STONE COATED METAL ROOF TILES



Over the centuries, people have been improving the ways to protect their homes from rain and sun, wind and heat. Roofing tiles have become one of the most popular coverings for pitched roofs. However, throughout the time, new, improved materials have appeared while the essence – the classic appearance – remained unchanged.

Stone-coated metal roof tiles by TECHNOMICOL is an incredible unity of esteemed traditions and innovative technologies.

The collection of colors of stone-coated metal roof tiles by TECHNOMICOL was created with respect to natural shades. Each individual color or their combination provides the opportunity to complement the style that will become the hallmark of your home.

Collections



Roman



Tile



Shingle



Slate



Shake



BASIC colors



Charcoal



Dark grey



Capri blue



Jade



Coffee brown



Teak



Terracotta



Brick red

DUAL colors



Granite black



Moss brown



Sea blue



Forest green



Desert brown



Sea mud



Jasper red



Tuscany



PROPERTIES	ROMAN	ROMAN PLUS	TILE	SHINGLE	SLATE	SHAKE
Panel size, mm	1322×425	1322×450	1340×420	1360×420	1320×420	1370×420
Effective size, mm	1253×370	1253×400	1265×370	1330×370	1250×370	1330×370
Panels, pcs/m ²	2.10	1.96	2.13	2.00	2.16	2.00
Weight, kg/m ²	5.96	5.96	5.96	5.60	6.05	5.60



Liepaja, Latvia
THE GREAT AMBER CONCERT HALL



Vienna, Austria
SOCIAL INSURANCE INSTITUTION (SVA)



Klaipeda, Lithuania
LIGHTHOUSE ARENA

LIQUID APPLIED WATERPROOFING



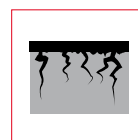
BITUMEN PRIMERS

BITUMEN PRIME COATING

SOLVENT BASED BITUMEN PRIMER

A ready to use BITUMEN PRIME COATING (Primer TECHNICONOL No. 01) is intended for surface preparation before the installation of bitumen roofing and waterproofing materials. The prime coating is necessary for ensuring strong adhesion of the bitumen-based waterproofing materials to porous, rough and dusty surfaces. The primer presents a mix of high-quality bitumen and specially selected organic solvents. It has an enhanced covering capacity, penetrability and short drying time.

The ready to use primer is applied to a surface with a roller and a large or small brush. It is applied to the substrate at once that ensures additional convenience and enhanced performance. The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C. Shelf life – 18 months.



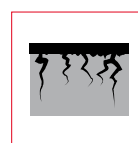
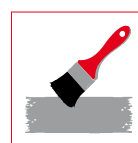
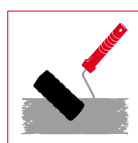
POLYMER-BITUMEN PRIME COATING

SOLVENT BASED POLYMER-BITUMEN PRIMER

A ready to use POLYMER-BITUMEN PRIME COATING is intended for surface preparation of bridge and flyover decks of orthotropic steel plates or reinforced concrete slabs before the installation of polymer-bitumen waterproofing materials. It is also used for surface preparation before the installation of self-adhesive polymer-bitumen membranes.

POLYMER-BITUMEN PRIME COATING is a mixture of high-quality bitumen, polymers, adhesion additives and specially selected organic solvents. The primer has an excellent penetrability and very short drying time. Due to the use of polymers, the primer has an enhanced softening temperature and can be used even on steel surfaces.

The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C. Shelf life – 12 months.



PROPERTIES	BITUMEN PRIME COATING	POLYMER-BITUMEN PRIME COATING
Mass fraction of non-volatile substances, %	45-55	25-30
Drying time at 20°C, h	12	≤15
Relative viscosity, s	15-40	10-30
Softening temperature, °C	≥70	≥100
Consumption, l/m ²	0.25-0.35	0.25-0.35
Bucket volume, l	3, 10, 20	20

UNIVERSAL WATER BASED PRIMER

WATER BASED BITUMEN PRIMER

A ready to use UNIVERSAL WATER BASED PRIMER is intended for surface preparation before the installation of bitumen roofing and waterproofing materials. The prime coating is necessary for ensuring a strong adhesion of the bitumen-based waterproofing materials to porous, rough and dusty surfaces.

The primer is produced on the basis of bitumen dispersion in water; it does not contain solvents. The primer has a neutral smell, so it is perfectly suited for indoor works.

The ready to use bitumen primer is applied to a surface with a large or small brush. It is applied to the substrate at once that ensures additional convenience and enhanced performance. Application temperature should be from +5°C to +40°C.

The product should be stored in a dry place protected from direct sunlight at a temperature above +5°C. Shelf life – 6 months.



PROPERTIES	UNIVERSAL WATER BASED PRIMER
Content of bitumen with emulsifier, %	25-40
Drying time at 20°C, h	1
Relative viscosity, s	5-30
Softening temperature, °C	≥75
Consumption, l/m ²	0.25-0.35
Bucket volume, l	20

BITUMEN MASTICS

MASTIC TECHNONICOL No. 21

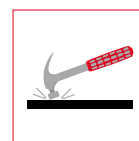
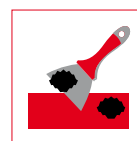
SOLVENT BASED ROOFING AND WATERPROOFING POLYMER-BITUMEN MASTIC

TECHNONICOL No. 21 ready to use roofing and waterproofing bitumen mastic is a mixture of high-quality bitumen, special polymers, mineral fillers and organic solvents. The coatings on its basis are very flexible, heat and moisture resistant and have an excellent adhesion to the substrate. After drying, it forms a high-strength waterproofing layer that considerably increases the service life of the protected structures. The mastic can be used within a wide range of operating temperatures thanks to the added polymers.

TECHNONICOL No. 21 mastic is used for:

- installation of mastic roofs and repair of old roofs;
- waterproofing of underground structures (foundations, basements, piles, etc.);
- waterproofing and anti-corrosion treatment of metal surfaces, including car bodies.

The mastic is applied to a surface layer by layer with a brush or spatula. A layer can also be applied by pouring and leveling. The thickness of one layer should not exceed 1.5 mm. Every following layer is applied after the previous one becomes dry. Application of at least 2 mastic layers is recommended for reliable waterproofing of underground structures, 3 layers are recommended for the installation of mastic roofs. The drying time under standard conditions is not more than 24 hours. The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C. Shelf life – 18 months.



PROPERTIES	MASTIC TECHNONICOL No.21
Adhesion strength to concrete, MPa	≥0.6
Adhesion strength to metal, MPa	≥0.9
Strength of adhesion between bitumen membrane - bitumen membrane, MPa	≥0.3
Strength of adhesion between bitumen membrane - concrete, MPa	≥0.4
Shear strength of adhesive bond, kN/m	≥4.0
Nominal strength, MPa	≥1.0
Elongation at break, %	≥500
Mass fraction of non-volatile substances, %	≥50
Heat endurance, °C	≥110
Cold bending on a bar with a radius of 5.0±0.2 mm at -35°C	no cracks
Water absorption over the course of 24 h, %	≤0.4
Water resistance at a pressure of 0.1 MPa applied for 24 h	Pass
Consumption for the installation of 1 layer, kg/m ²	1.2–1.9
Bucket volume, kg	3, 10, 20

MASTIC TECHNONICOL No. 24

SOLVENT BASED WATERPROOFING BITUMEN MASTIC

TECHNONICOL No. 24 ready to use waterproofing bitumen mastic is a mixture of high-quality bitumen, mineral fillers, special additives and organic solvents.

TECHNONICOL No. 24 mastic is used for the waterproofing of concrete or wood surfaces of underground structures (foundations, basements, piles, etc.).

The mastic is applied to a surface layer by layer with a brush or spatula. A layer can also be applied by pouring and leveling. Every following layer is applied after the previous one becomes dry. Application of at least 2 mastic layers is recommended for reliable waterproofing. Drying time under standard conditions is not more than 24 hours.

The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C. Shelf life – 18 months.



PROPERTIES	MASTIC TECHNONICOL No.24
Adhesion strength to concrete, MPa	≥0.1
Adhesion strength to metal, MPa	≥0.1
Shear strength of adhesive bond, kN/m	≥2.0
Mass fraction of non-volatile substances, %	≥65
Heat endurance, °C	≥80
Cold bending on a bar with a radius of 5.0±0.2 mm at -5°C	no cracks
Water absorption over the course of 24 h, %	≤0.4
Water resistance at a pressure of 0.03 MPa applied for 10 min	Pass
Consumption for the installation of 1 layer, kg/m ²	0.7-1.0
Bucket volume, kg	3, 10, 20

MASTIC TECHNICONOL No. 31

WATER BASED ROOFING AND WATERPROOFING POLYMER-BITUMEN MASTIC

TECHNICONOL No. 31 ready to use roofing and waterproofing bitumen mastic is a mixture of an aqueous emulsion of bitumen, special polymers, additives and mineral fillers. It has an enhanced elasticity, heat endurance and water-resistant properties. The mastic has a neutral smell, so it is perfectly suited for indoor works.

TECHNICONOL No. 31 mastic is used for:

- indoor waterproofing (bathrooms, pools, balconies, etc.);
- installation of mastic roofs and repair of old roofs;
- waterproofing of underground structures (basements, piles, etc.).

The mastic is applied to a surface layer by layer with a roller or brush. A layer can also be applied by pouring and leveling. The thickness of one layer should not exceed 1.5 mm. Every following layer is applied after the previous one becomes dry. Application of at least 2 mastic layers is recommended for reliable waterproofing of underground structures, 3 layers are recommended for the installation of mastic roofs.

The product should be stored in a dry place protected from direct sunlight at a temperature above +5°C. Shelf life – 6 months.



PROPERTIES	MASTIC TECHNICONOL No.31
Adhesion strength to concrete, MPa	≥0.45
Nominal strength, MPa	≥0.5
Elongation at break, %	≥700
Content of bitumen binder with emulsifier, %	50-70
Heat endurance, °C	≥95
Cold bending on a bar with a radius of 5.0±0.2 mm at -15°C	no cracks
Water absorption over the course of 24 h, %	≤1.0
Water resistance at a pressure of 0.1 MPa applied for 24 h	Pass
Consumption for the installation of 1 layer, kg/m ²	1.2-1.9
Bucket volume, kg	3, 10, 20

MASTIC TECHNONICOL No. 33

SOLVENT BASED REFLECTIVE POLYMER-BITUMEN MASTIC

TECHNONICOL No. 33 spray-applied roofing and waterproofing bitumen mastic is a mixture of an aqueous emulsion of bitumen, special polymers and latex additives. It has an outstanding elasticity, heat endurance and strength properties.

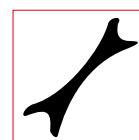
The mastic has a neutral smell, so it is perfectly suited for indoor works. Spray application of the mastic can significantly reduce the time needed for the installation of a waterproofing layer.

TECHNONICOL No. 33 mastic is used for:

- indoor waterproofing (bathrooms, balconies, etc.);
- installation of mastic roofs and repair of old roofs;
- waterproofing of underground structures (foundations, basements, piles, etc.).

The mastic is spray applied to a surface together with a coagulant solution (supplied with the product) with a dual-channel airless spraying device.

The product should be stored in a dry place protected from direct sunlight at temperatures from +5°C to +30°C.
Shelf life – 6 months.



PROPERTIES	MASTIC TECHNONICOL No.33
Adhesion strength to concrete, MPa	≥0.6
Nominal strength, MPa	≥0.7
Elongation at break, %	≥900
Mass fraction of non-volatile substances, %	53-65
Heat resistance, °C	≥140
Cold bending on a bar with a radius of 5.0±0.2 mm at -25°C	no cracks
Water absorption over the course of 24 h, %	≤0.4
Water resistance at a pressure of 0.1 MPa applied for 24 h	pass
Consumption for the installation of 1 mm layer, kg/m ²	1.5
Bucket volume, kg	200

MASTIC TECHNONICOL No. 57

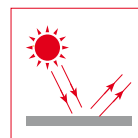
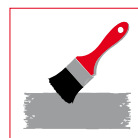
SOLVENT BASED REFLECTIVE POLYMER-BITUMEN MASTIC

TECHNONICOL No. 57 ready to use reflective bitumen mastic is a mixture of high-quality bitumen, special polymers, aluminum pigment, additives and organic solvents. The coating layer formed by the mastic effectively protects the bitumen roofing against UV rays and heat; it also protects the metal roof from corrosion.

TECHNONICOL No. 57 mastic is used for:

- installation of a protective layer on new mastic roofs;
- recovery of the protective layer on old roofs;
- corrosion protection of roof coverings.

The mastic is applied to a surface with a brush, roller or airless spraying device. Application of 2 mastic layers is recommended.



PROPERTIES	MASTIC TECHNONICOL No.57
Adhesion strength to concrete, MPa	≥0.3
Adhesion strength to metal, MPa	≥0.3
Mass fraction of non-volatile substances, %	≥50
Heat resistance, °C	≥100
Cold bending on a bar with a radius of 5.0±0.2 mm at -15°C	no cracks
Consumption for the installation of 1 layer, kg/m ²	0.4-0.6
Bucket volume, kg	3, 10, 20

MASTIC TECHNONICOL FIXER

SOLVENT BASED ADHESIVE POLYMER BITUMEN MASTIC

TECHNONICOL FIXER ready to use adhesive bitumen mastic is a mixture of high-quality bitumen, special polymers, additives, fillers and organic solvents.

The mastic provides excellent adhesion of bitumen-based materials (e.g. roofing shingles, polymer-bitumen membranes) to the application surface, thus reliably sealing the overlaps and connections.

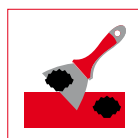
TECHNONICOL FIXER mastic is used for:

- adhesion of bitumen-based materials to different types of surfaces (wood, metal, concrete, brick, ceramic, etc.);
- sealing of joints, penetrations, overlaps, connections made with the use of bitumen-based materials.

The mastic is applied to a surface with a spatula. The thickness of application depends on the type of work performed, but usually does not exceed 1 mm. The application temperature range is from -10°C to +40°C. The drying time under standard conditions is not more than 24 hours.

The product should be stored in a dry place protected from direct sunlight at temperatures from -20°C to +30°C.

Shelf life – 18 months.



PROPERTIES	MASTIC TECHNONICOL FIXER
Adhesion strength to concrete, MPa	≥0.5
Adhesion strength to metal, MPa	≥0.8
Mass fraction of non-volatile substances, %	≥75
Heat resistance, °C	≥110
Cold bending on a bar with a radius of 5.0±0.2 mm at -15°C	no cracks
Consumption for the installation of 1 layer, kg/m ²	1.0
Bucket volume, kg	3.6, 12 kg, cartridge of 310 ml

POLYMER COATINGS

TECHNONICOL EPOXY PRIMER 021

TWO COMPONENT EPOXY PRIMER

TECHNONICOL EPOXY PRIMER 021 is a transparent rigid two component solvent less epoxy primer. It is used as primer for waterproofing, sealing and floor coating applications of absorbent substrates. It is cured by cross linking reaction between the two components.

- Excellent workability: application is simple with a brush or roller.
- Excellent bonding to absorbent substrates enabling its use as an inter-coat between old and new concrete surfaces.
- Can be applied on moist and wet substrates without loss of adhesion (Up to 5% of moisture)
- Low VOC content
- Resistant to standing water.
- Excellent chemical resistance.

TECHNONICOL EPOXY PRIMER 021 is mainly used as a primer for Epoxy self-leveling coatings, polyurethane coatings, polysulphide/ polyurethane/ epoxy Polyurethane sealants, anti skid primer on absorbent surfaces.

- It can be used on moist concrete (up to 5% moisture content).
- It can be used as bonding agent between old and new concrete.
- It can be used as an inter-coat adhesion between the top and intermediate coat.
- It can also be used as an inter-coat adhesion on painted surfaces.
- Exterior RCC surfaces include sloping roofs, masonry walls or facades.

PRODUCT APPLICATION:

Mixing Ratio: BASE - 3 parts by weight and HARDENER – 2 parts by weight.

New concrete surface: The surface should be free from dust and loose particles. Loose particles should be removed by washing or blowing air. Apply TECHNONICOL EPOXY PRIMER 021 Coat at a spread rate of 50 -55 square feet/ kg/ coat depending on the porosity of the concrete for Plain finish and 20-25 square feet for Anti-skid finish. Allow 8-12 hrs. to dry, if possible, wait 24 hours before application.

Existing/old Concrete Surface: Remove all loosely adhered coatings & other contaminants like algae or fungus. Fill existing cracks with a mixture of TECHNONICOL EPOXY PRIMER 021 and sand. Apply TECHNONICOL EPOXY PRIMER 021 Coat at a spread rate of 50-55 square feet/ kg / coat depending on the porosity of the concrete for Plain finish and 20-25 square feet for Anti- skid finish. Allow 8-12 hrs. to dry, if possible, wait 24 hours before application.



PROPERTIES	TECHNONICOL EPOXY PRIMER 021
Method of application	Brush or Roller
Pot life (100 GM MIX), min	at 25°C: 25 to 30, at 35°C: 15 to 20
Specific gravity, g/cm ³	1.05 to 1.12
Overlay time (maximum), hours	24
Curing time	Initial Cure: 24 hours, Final Cure: 7 days
Application temperature, °C	5 to 35

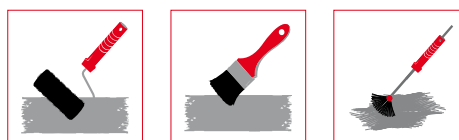
TECHNONICOL ULTRASHIELD

LIQUID-APPLIED, ACRYLIC BASED, MICROFIBER REINFORCED WATERPROOFING COATING

ULTRASHIELD is a flexible, liquid applied, single component, ultraviolet, and weather resistant, acrylic waterproofing membrane for all types of exposed roof slabs (new and old), terraces (sloped and flat), etc. ULTRASHIELD contains cross linking polymers, special glass microfibers, pigments, and an advanced antifungal additive that create a long-lasting tough waterproofing membrane.

TECHNONICOL ULTRASHIELD is used for the waterproofing and protection of:

- High solar reflectance index (SRI) indicates high degree of cooling effect.
- Roof slabs (flat and sloped).
- RCC/ asbestos/ lime terraced roofs, etc. after suitable surface preparation and repairs.
- It is suitable for repairing existing bituminous membrane.
- It can be used as exterior coating for PVC water tanks exposed to direct sunlight on roofs.
- Extended walls, balconies, and sunshades.



PROPERTIES	TEST METHOD	TECHNONICOL ULTRASHIELD
Chemical base	-	Acrylic polymer dispersion
Density, kg/l at 27° C	-	1.35
Layer thickness with glass fibre, mm	-	1.2
Solid content, % (by weight)	ASTM D 2969	66
Tensile strength, MPa	ASTM D412	1.5
Elongation at break, %	ASTM D412	>200
Adhesion strength to cement after 14 days of curing, N/mm ²	EN 1542	≥ 1.5
Crack bridging properties, mm	ASTM C 836	2.5
Water absorption (% by mass)	ASTMD 570	< 10
Water vapor transmission, g/m ² / 24h	ASTM E96	23
Shore A hardness	ASTM D 2240	45 after 1 month
Solar reflectance index	ASTM E1980	106 (low wind to high wind condition) 49.8 to 41°C (low wind to high wind condition)
Algae & fungal growth	ASTM D5590	No growth
Water permeability	IS 2645	Passes

TECHNONICOL ULTRATHANE

SINGLE-COMPONENT MOISTURE CURING LIQUID POLYURETHANE MEMBRANE

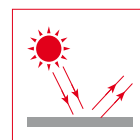
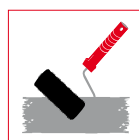
TECHNONICOL ULTRATHANE is a single-component moisture curing liquid-applied mastic made from pure polyurethane, which once cured forms a continuous elastic membrane, without any joints, overlapping or any integrated mesh required. It can be applied with a brush, squeegee, roller, or airless spray. Roller application is necessary for reinforced systems.

The product is available in grey, white, other requested colors.



Waterproofing systems with or without reinforcement for:

- Roofs, terraces, and balconies.
- Tanks, channels, pipelines.
- Renewing old membranes.
- Parking and sport areas.
- Wet areas.
- Bridge decks, overpasses, and podiums.



TECHNONICOL ULTRATHANE ECO

SINGLE-COMPONENT MOISTURE CURING LIQUID POLYURETHANE MEMBRANE

TECHNONICOL ULTRATHANE ECO is a single-component moisture curing liquid made up from pure polyurethane, which once catalyzed forms a continuous elastic membrane, without any joints, overlapping or any integrated mesh required. It can be applied with a brush, squeegee, roller, or airless spray. Roller application is necessary for reinforced systems.

The product is available in grey, white, other requested colors.

Waterproofing systems with or without reinforcement for:

- Roofs, terraces, and balconies.
- Tanks, channels, pipelines.
- Renewing old membranes.
- Parking and sport areas.
- Wet areas.
- Bridge decks, overpasses, and podiums

PROPERTIES	TEST METHOD	TECHNONICOL ULTRATHANE	TECHNONICOL ULTRATHANE ECO
Specific weight, g/ml	UNI EN ISO 2811-1	1.40± 0,07	1,40± 0.07
Viscosity at 20°C, mPa.s	UNI EN ISO 2555	4,000 ± 1,000	4,000 ± 1,000
Solid content, %	EN ISO 3251	90±1	90±1
Crack bridging, mm	EN 1062-7	>2	>2
Capillary absorption and permeability to water, kg/m ² · h ^{0.5}	EN ISO 1062-3	< 0.1	< 0.1
Adhesion to concrete, MPa	EN 1542	> 2.0	> 2.0
Tensile strength, MPa	UNI EN 12311-2	4-6	3-3.5
Elongation at break, %	UNI EN 12311-2	>450	>500
Shore A Hardness	EN ISO 868	70	70
Adhesion to green concrete	EN 13578	No swelling, no cracks, no spalling	No swelling, no cracks, no spalling

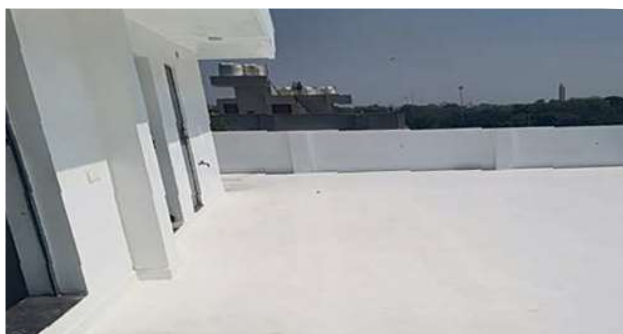
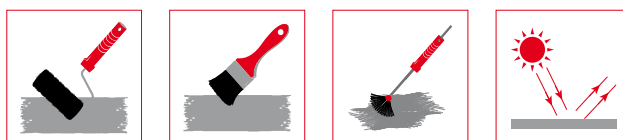
TECHNONICOL ULTRATHANE PUD

LIQUID-APPLIED POLYURETHANE WATERPROOFING MEMBRANE

ULTRATHANE PUD is a liquid-applied, highly permanent elastic, cold applied and cold curing, water based, single-component, modified polyurethane membrane used for long-lasting waterproofing. When ULTRATHANE PUD is applied, it forms a hydrophobic, 100% waterproofing, permanent elastic, seamless membrane without joints or leak possibilities that protects old and new structures efficiently and on a long-term basis.

TECHNONICOL ULTRATHANE PUD is used for:

- Waterproofing Roofs
- Waterproofing Balconies and Terraces
- Waterproofing Decks
- Waterproofing Wet Areas (under tiles)
- Waterproofing and protection of Concrete structures.
- Waterproofing and protection of Drywall and Cement boards protection of Polyurethane Foam Insulation.



PROPERTIES	TEST METHOD	TECHNONICOL ULTRATHANE PUD
Specific weight, g/ml	UNI EN ISO 2811-1	1.34± 0,02
Appearance	-	Viscous liquid
Solid content	EN ISO 3251	>66
Tensile strength, N/mm ²	UNI EN 12311-2	>1.5
Elongation at break, %	UNI EN 12311-2	>400
Adhesion to concrete, N/mm ²	EN 1542	>1.5
Resistance to water pressure	-	No Leak (1m water column, 24h)
Chemical resistance	-	Good resistance against alkali
Shore A Hardness	EN ISO 868	>70
Capillary absorption and permeability to water, kg/m ² · h ^{0.5}	EN ISO 1062-3	< 0.1
Crack bridging, mm	EN 1062-7	Up to 2.00
Pedestrian traffic (allowed)	-	Medium traffic
Tack free time	-	6-12 Hours / 20°C / 50% RH
Light pedestrian traffic time	-	18 Hours / 20°C / 50% RH
Final curing time	-	7 days / 20°C / 50% RH
Flash point	-	Non-flammable

TECHNONICOL ULTRATHANE SUPER

HYBRID POLYUREA MEMBRANE FOR WATERPROOFING AND COATING

TECHNONICOL ULTRATHANE SUPER is a two-component spray applied hybrid polyurea/polyurethane that forms a continuous, solid, 100% waterproof membrane without joints or overlaps and completely adheres to the substrate. It is suitable for waterproofing, protection and sealing in general. Due to its liquid application, it is ideal for repair or recoating on top of other PU / polyurea membranes range, once these are already catalyzed.

TECHNONICOL ULTRATHANE SUPER is used for the waterproofing and protection of:

- Walkable roofs.
- Terraces, balconies, and overhangs.
- Metal roofs.
- Asbestos roofs.
- Other PU / polyurea membranes.

Recommended thickness is 2.00 mm. Environmental temperature for application: +5°C ~ 35°C.

Surface temperature for application: +3°C ~ 30°C.

Maximum environmental relative humidity: 80%. Pot life at 23°C: 20 ~ 25 minutes.

TECHNONICOL ULTRATHANE SUPER CA

COLD APPLIED HYBRID POLYUREA MEMBRANE FOR WATERPROOFING AND COATING

TECHNONICOL ULTRATHANE SUPER CA is a liquid applied two-component hybrid polyurea/polyurethane that forms a continuous, solid, 100% waterproof membrane without joints or overlaps and completely adheres to the substrate. It is suitable for waterproofing, protection and sealing in general. Its properties make it an excellent choice to be applied on a multitude of substrates of new buildings and in refurbishments. It is applied manually and also with airless spray machines.

TECHNONICOL ULTRATHANE SUPER CA is used for waterproofing and protection of:

- Walkable roofs.
- Terraces, balconies, and overhangs.
- Metal roofs & Asbestos roofs.
- Other PU / polyurea membranes.

Recommended thickness is 1.5mm.

Environmental temperature for application: +5°C ~ 35°C.

Surface temperature for application: 5°C ~ 35°C. Do not proceed with application if atmospheric relative humidity is >80% or if the surface temperature is <3°C above the dew point.

PROPERTIES	TEST METHOD	TECHNONICOL ULTRATHANE SUPER	TECHNONICOL ULTRATHANE SUPER CA
Density at 23°C, g/cm ³	ISO 1675	1.10±0.02	1.40±0.07
Solids content, %	ISO 1768	100	>90
Fire reaction, Euro class	-	F	F
Tear strength at 23°C, N/mm	ASTM D 624	45±10	>25
Tensile strength at 23°C, MPa	ASTM D 412	15±2	10±2
Service temperature range	-	-30°C to 90°C	-30°C to 90°C
Elongation at break at 23°C, %	ASTM D 412	450±100	>550
Adherence to concrete, MPa	ASTM D4541	≥2	≥2
Static crack bridging ability, mm	ASTM D 836	≥2	≥2
Curing time at 23°C	-	12 h	6 days
Packaging, drums(A+B), kg	-	210-250	20

CEMENTITIOUS WATERPROOFING



TECHNONICOL TECHNOCRETE

A SURFACE TREATMENT SYSTEM FOR PROTECTING CONCRETE AND MASONRY

TECHNONICOL TECHNOCRETE is an acrylic-based polymer modified cementitious flexible composite coating system. TECHNONICOL TECHNOCRETE in conjunction with cement provides properties to combat the shortcomings of plain cement, particularly its poor adhesion properties, low impact strength, low flexural strength and thin section fragility. TECHNONICOL TECHNOCRETE polymer adds to the potential use as well as enhances the properties of cement slurry, mortar or concrete making it an excellent choice for the use in new construction as well as in renovation work.

TECHNONICOL TECHNOCRETE is used for surface treatment, protection, waterproofing and repairing concrete and masonry. Waterproofing of basements, toilets, terraces, roofs, swimming pools, water towers etc. General concrete repairs. Protection of concrete against corrosion, salt attack etc.

- Combines a tough, flexible, hard-wearing surface with waterproofing.
- Allows trapped vapor to escape thus preventing peeling and blistering.
- Can be applied in uniform thickness to horizontal and vertical surfaces.
- Develops excellent bonds to most building materials.
- Reduces or prevents salt penetration into concrete.
- Is not affected by ultraviolet light or by chemicals ranging from mild acids to strong alkalies.
- Is highly durable in continuous wet conditions.
- Is non-flammable and does not give off toxic gases when exposed to fire.
- Will not rot or corrode.
- Most properties improve with age.
- Is not harmful to the health of workmen.

Store in dry cool place in the temperature range from 5°C to 30°C in sealed condition. Do not allow it to freeze. Keep away from direct sunlight.



PROPERTIES	TEST METHOD	TECHNONICOL TECHNOCRETE
Appearance	visual	milky white coloured free flowing liquid
Viscosity, sec	IS 101	12±1
Solid content, % (by weight)	IS 101	30±3
Parameter of pH, value	IS 9103	>7
14 days bond strength, MPa (min or concrete failure)	ASTM C 882-87	2.0
28 days compressive strength, MPa	IS 516	>30
Recoating time at 27°C and 65% pH, h	IS 101	4-6
Full cure, days	IS 101	14
Ash content, % (by weight)	IS 101	<1.0
Volatile organic matter (VOC), % (by weight)	IS 101	<1.0

TECHNONICOL ULTRACEM 2C

TWO-COMPONENT ELASTIC CEMENT WATERPROOFING MEMBRANE

TECHNONICOL ULTRACEM 2C is used for:

- Waterproofing terraces, tanks, swimming pools, balconies before laying ceramic tiles.
- Waterproof coating of retaining walls and lining for concrete structures.
- Flexible coating of prefabricated structures, micro-cracked concrete substrates, screeds, plasters.
- Protection of concrete from the action of smoke, carbon dioxide, chlorides, sulphates.
- Waterproofing tanks for water containment.

ADVANTAGES:

- Excellent water resistance,
- Applicable on various types of substrates.
- High flexibility
- Applicable from + 5 °C to + 35 °C (substrate temperature).

The substrate should be solid, free of dust, any contaminations, efflorescence, and offcuts itself, paints, waxes, oils and rust. All irregularities that can cause consistent thickness changes or difficulties in application must be eliminated. If the substrates to be processed are too absorbent, moisten them with water before application of the product. Clean well and remove all incoherent parts, restoring with polymer modified mortar.

The product in its original sealed packaging, kept in a dry and protected place, sheltered from high and low temperatures, is kept for 12 months.



PROPERTIES	TEST METHOD	TECHNONICOL ULTRACEM 2C
Appearance	Visual	Grey/off white
Mixed density, kg/l	ASTM D1475	1.8±0.02
Pot life, minutes	-	45
Tensile strength, MPa	ASTM D412	>2
Elongation at break, %	ASTM D412	>50
Adhesion strength to concrete, MPa	ASTM D4541	>1.5
Crack bridging, mm	ASTM D836	>1.5
Hydrostatic pressure@5 bar (50m)	BS EN 12390 Part 8	No leakage
Toxicity	IS 6582	Non toxic
Application of a second layer after, h	-	4-6
Drying time, h	-	6-8
Full cure, days	-	7

TECHNONICOL CA 110

CRYSTALLINE WATERPROOFING ADMIXTURE

TECHNONONICOL CA 110 a reactive crystalline type waterproofing material which is formulated by proprietary blends of chemicals (mainly organic and inorganic salts), quartz, sand and cement.

TECHNONICOL CA 110 is an environmentally friendly and low VOC material. It is an integral waterproofing system that is being added to batches of concrete during mixing process. The active chemicals which react with moisture in fresh concrete and with by-product of cement hydration in the concrete or cement-based materials will cause a catalytic reaction that creates a non-soluble crystalline formation which crystallizes in the pores and capillary tracks.

In the long run, under a supersaturation environment inside concrete, TECHNONICOL CA 110 initiates crystallization process. When this process takes place, millions of needle-like crystals are formed and fill the capillary tracks, pores and microscopic voids within the concrete. Paths for harmful moisture and aggressive chemicals are blocked permanently.

TECHNONICOL CA 110 is added to batches of concrete during the mixing process for new construction projects. The high-growth organic component of the product reacts with water and unhydrated particles in concrete to form millions of needle-like crystals. These crystals grow and migrate through the concrete to fill in hair-thin pores and microscopic voids up to 0.5mm that would otherwise serve as passages for harmful moisture. TECHNONICOL CA 110 technology enhances the natural hydration process in concrete, increasing compressive strength over time and dramatically reducing cracks caused by shrinkage.

TECHNONICOL CA 110 is used to waterproof areas as indicated below:

- Basement floors and retaining walls.
- Concrete flat roofs.
- Water retaining structures.
- Lift pits.
- Swimming pools.
- Reservoirs.
- Secondary contamination structures.
- Tunnels and subway systems.
- Precast, cast- in- place and shotcrete application.

LOW VOC - TECHNONICOL CA 110 powder product contains low volatile organic compounds and are safe for use both outdoor and in confined indoor spaces.

- Environmentally friendly.
- Easy to use - only mix with concrete.
- It provides significant cost saving because it eliminates labour cost in the long run. Integral protection for the entire concrete.
- Permanent protection even if the surface is damaged.
- It can seal the capillaries and minor shrinkage cracks up to 0.5mm through crystal formation.
- It resists extreme hydrostatic pressure from either positive or negative surface of the concrete slab.
- Timesaving.
- It improves durability of the concrete.
- Non-toxic.
- Admixture for Hydrostatic conditions (PRAH)
- It exceeds the requirements of ASTM C494-S (Specific performance admixture)

PROPERTIES	TECHNONICOL CA 110
Form	Cement powder (Grey)
Chloride contents BS 507S	Nil
Potable condition BS 6920 Part 1:2000	Complied
Coefficient of water permeability (m/s) ADM/CE/017:2013	1.13×10^{-13}
Can seal hairline cracks, mm	Up to 0.5
Shelf life	1 year when unopened and undamaged
Packaging, kg/pail	25

TECHNONICOL CA 112

SURAFCE APPLIED CRYSTALLINE WATERPROOFING COATING

TECHNONONICOL CA 112 is a surface applied crystalline waterproofing treatment for concrete structures that is used to protect against the ingress of water. It is a dry powder which is formulated by proprietary blends of chemicals (mainly organic and inorganic salts), quartz, sand and cement and which when mixed with water becomes a coating that is applied to the inner or outer side of a concrete structure.

TECHNONICOL CA 112 is an environmentally friendly and low VOC material. The active chemicals which react with moisture in fresh concrete and with by-product of cement hydration in the concrete or cement-based materials will cause a catalytic reaction that creates a non-soluble crystalline formation.

When this process takes place, millions of needle-like crystals are formed and fill the capillary tracks, pores and microscopic voids within the concrete. Paths for harmful moisture and aggressive chemicals are blocked permanently. These crystals grow and migrate through the concrete to fill in hair-thin pores and microscopic voids up to 0.5mm that would otherwise serve as passages for harmful moisture. TECHNONICOL CA 112 technology enhances the natural hydration process in concrete, increasing compressive strength over time and dramatically reducing cracks caused by shrinkage.

TECHNONICOL CA 112 is used to waterproof areas as indicated below:

- Basement floors and retaining walls.
- Concrete flat roofs
- Water retaining structures.
- Lift pits
- Swimming pools
- Reservoirs
- Secondary contamination structures
- Tunnels and subway systems
- Precast, cast- in- place and shotcrete application.

LOW VOC – TECHNONICOL CA 112 powder product contains low volatile organic compounds and are safe for use both outdoor and in confined indoor spaces.

- Environmentally friendly.
- It reaches well below the surface and is not affected by surface wear and abrasion.
- Permanent protection even if the surface is damaged.
- It can seal the capillaries and minor shrinkage cracks up to 0.5 mm through crystal formation.
- It resists extreme hydrostatic pressure from either positive or negative surface of the concrete slab.
- Treatment may be applied to old and New concrete.
- It improves durability of the concrete.
- Non-toxic.
- It allows concrete to breathe.
- It exceeds the requirements of ASTM C494-S (Specific performance admixture)

PROPERTIES	TECHNONICOL CA 112
Appearance	Grey (Powder)
Form	Portland cement, Silicate
Chloride contents BS 507S	Nil
Potable condition BS 6920 Part 1:2000	Complied
Density, g/cm ³ (bulk)	2.0
Can seal hairline cracks, mm	Up to 0.5
Shelf life	12months when unopened and undamaged
Packaging, kg/pail	25
Application temperature, °C	8 ~40



Rezekne, Latvia
GORS, THE EMBASSY OF LATVIA



Horní Počernice, Czech Republic
P3 PARK, HALL IX



Road M27, Russia-Georgia
TUNNEL



POLYURETHANE FOAM

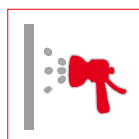


TECHNONICOL LOGICFOAM SPF

SPRAYED POLYURETHANE FOAM THERMAL INSULATION

TECHNONICOL LOGICFOAM SPF is a spray applied closed cell CFC & HCFC free, two-component polyurethane foam insulation that forms a continuous, rigid, 100% jointless coating that completely adheres to any substrate. LOGICFOAM SPF is suitable for a wide range of insulation applications like roof, wall etc. LOGICFOAM SPF has high insulating capacity and is easy to apply to cover all surfaces application. It is liquid spray applied thereby sealing all cracks, crevices, etc. thus making the entire roof moisture resistant.

- The spray application is carried out by means of high pressure two component mobile machines equipped with a preheating device and heated hoses.
- The desired thickness is achieved through multiple passes/ layers and each layer will give an increase of thickness in the range of approx 10-15 mm.
- TECHNONICOL LOGICFOAM SPF adheres firmly to the substrate thereby sealing all cracks and rendering the surface moisture resistant. The system has a closed cell structure thereby having low water vapour transmission properties and inhibiting ingress of moisture.
- The firm bonding to the substrate can also add significantly to the reduction in vibration of thin membrane roofs and increase the structural strength of the building itself.



PROPERTIES	TEST METHOD	TECHNONICOL LOGICFOAM SPF
Density, (kg/m ³)	ASTM D 1622	45-50
Thermal conductivity value at 25° C (W/m _k)	ASTM C 518	0.023
Compressive strength, KPa	ASTM D 1621	>300
Dimensional stability, %	ASTM D 2126	±1
Closed cell content, %	ASTM D 2856	>96
Fire properties	DIN 4102	B2
Water absorption, (immersion) 96 Hrs, %.	ASTM D 2842	<2



STONE WOOL



Stone wool is a highly effective insulating material. By thermal efficiency, it is ready to compete with the reference insulator – air in a stationary state. High resistance to thermal transfer is achieved by retaining a large amount of air in a stationary state within the insulation thanks to the use of closely intertwined finest fibers of mineral wool. Thermal insulation based on stone wool by TECHNOMICOL Corporation has a number of technical and performance advantages created during the production stage.

ABOUT THE MATERIAL

Stone wool is made from gabbro-basaltic stones with the addition of sedimentary of low acidity. Supplements are necessary to provide the desired plug-acidity, melting point and to obtain a melt with the desired flow characteristics.

Technological processes are automated and strict quality control is implemented at all stages of the production — from raw materials to finished product testing. That ensures the stability of product properties.

Ready-to-use slabs of stone wool are safely packaged in a shrink film. A pallet of stone wool is wrapped using stretch-hood technology, which reduces transportation and labour costs because of higher handling speed. This type of packaging protects the material from damage when it is stored on the ground or on a construction site, so the stone wool does not lose its physical and mechanical properties in such storage conditions.

PRODUCTION QUALITY

All our materials are produced from basalt rocks on advanced high tech equipment of leading European manufacturers.

The quality management system of TECHNOMICOL stone wool production is certified according to ISO 9001:2000. Implementation of this certification ensures

effective company management in general as well as the output of products with stable qualitative characteristics to meet requirements of international markets and customer expectations.

The system of ecological management at all stone wool producing plants is certified according to ISO 14001:2004 issued by a German certifying organisation Deutsche Akkreditierungsstelle GmbH. This certificate confirms that the applied manufacturing process meets the highest international requirements of environmental regulations. Control of this process guarantees the reduction of negative impacts on the environment as well as waste reclamation and disposal, which, in turn, improves our environmental performance. Long experience, modern equipment, continuous technology perfection and the innovations introduced by the proprietary Research Center allow TECHNOMICOL to manufacture stone wool products of stable premium quality.

RANGE OF MATERIALS

The use of thermal insulation materials is an obligatory stage of many construction and repair processes.

A wide range of TECHNOMICOL stone wool products is divided by area of application and allows the use of products in both civil and private housebuilding.

The product range includes insulation for plaster and ventilated facades, pitched and flat roofs, floors, walls, sandwich panels, etc.



- Standard slabs of stone wool are used for thermal and acoustic insulation in most application areas.



- Slabs with grooves are used for thermal insulation of flat roofs with the formed system of ventilated channels.



- Slabs with a rough surface are used to increase the adhesion of the protective layer of plaster in thermal insulation of facades.



- Slope shaped slabs are used to create the slope of 1.7 or 4.2% on flat roofs in order to drain water from the roof to funnels.

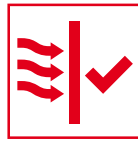


ADVANTAGES



EFFECTIVE THERMAL INSULATION

TECHNONICOL stone wool is a highly effective thermal insulation material. High resistance to thermal transmission is achieved because of finest intertwined mineral wool fibers, which retain a large amount of air inside the material.



VAPOR PERMEABILITY

The vapor permeability of TECHNONICOL stone wool is high, the materials do not retain the moisture coming from the premises in the form of vapor created by human activities. The thermal insulation remains practically always dry.



FIRE SAFETY

Gabbro-basalt rocks are the main raw material of stone wool products. Thanks to this, all TECHNONICOL stone wool products are non-flammable. The fiber melting temperature exceeds 1000°C that makes it possible to use the stone wool products in a wide range of working temperatures.



WATER REPELLENCY

All TECHNONICOL stone wool is treated with water-repelling agents. The presence of moisture in the insulation affects its properties, the service life and indoor climate. Usually, if a thermal insulation gets damp, it needs to be replaced. Our stone wool is effectively protected against moisture.



POWERFUL SOUND ABSORPTION

The fibrous structure of stone wool products secures excellent acoustic and sound-absorbing properties. TECHNONICOL products have high sound-absorbing ratios in the broad range of frequencies, which decreases the level of airborne and impact noise in various sound-insulating structures: partitions, floors, walls and others.



CHEMICAL RESISTANCE

TECHNONICOL stone wool is manufactured from basalt stone. Natural minerals of this group are notable for their high chemical resistance to various substances: oils, solvents, paints, acidic and alkaline. Stone wool can be safely used together with any types of construction materials as well as corrosive filters in many branches of chemical industry.



BIOSTABILITY

TECHNONICOL stone wool products fully meet the biological stability criteria, which was proved with numerous tests and trials as well as with the field data. Stone wool can offset the effect of various macro- and microorganisms: the material does not provide conditions for the vital activity of bacteria, mold, fungi, and is not attractive as an environment for insects and rodents.



ECOLOGICAL COMPATIBILITY

Being one of the major European mineral wool producers, TECHNONICOL constantly improves its products and services by using modern equipment and implementing eco-friendly technologies. All products comply with environmental standards, they are safe for human health and nature. That is achieved by a full cycle of certification, both obligatory and optional.



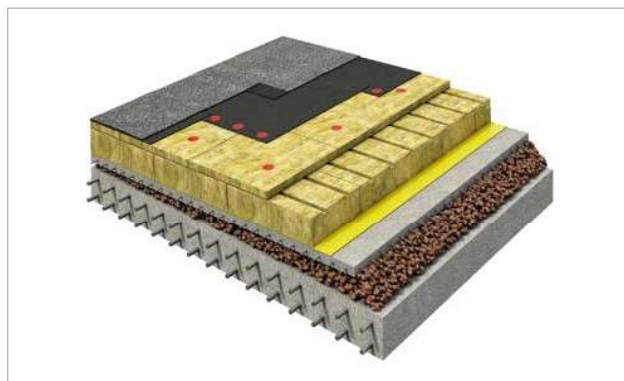
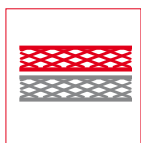
DIMENSIONAL STABILITY

Increased mechanical stress resistance of TECHNONICOL stone wool is ensured by fiber properties and stone wool structure. These parameters are set individually for each type of material, depending on the area of application of the thermal insulation.



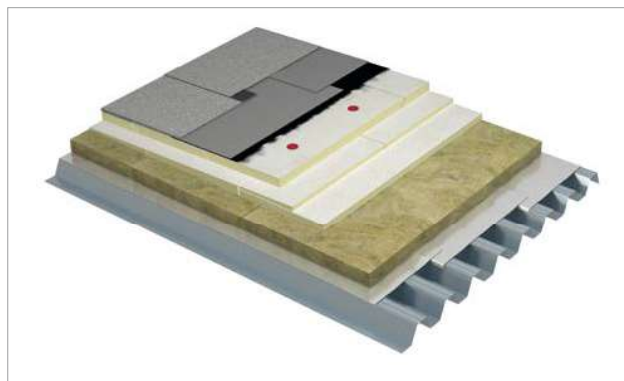
TECHNOROOF V60

TECHNOROOF V60 is a nonflammable water-repellent thermal and sound insulation slab of mineral wool based on basalt rocks. It is used as a top thermal insulation layer on flat roofs in new constructions or reconstructions of industrial and civil buildings and structures.



TECHNOROOF N30

TECHNOROOF N30 is a nonflammable water-repellent thermal and sound insulation slab of mineral wool based on basalt rocks. It is used as a bottom thermal insulation layer on flat roofs in new constructions or reconstructions of industrial and civil buildings and structures.

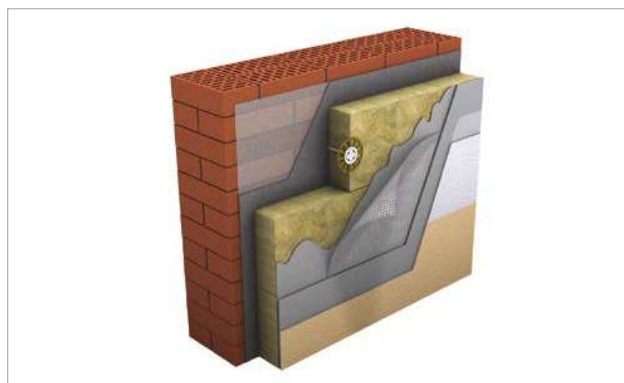
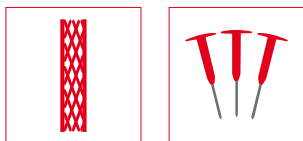


PROPERTIES	TEST METHOD	TECHNOROOF V60	TECHNOROOF N30
Thermal conductivity λ_D at 10°C, W/m²K	EN 12667	0.038	0.036
Tensile strength, kPa	EN 1607	15.0	7.5
Point load, N	EN 12430	700	250
Short term water absorption, kg/m²	EN 1609	≤1.0	≤1.0
Long term water absorption, kg/m²	EN 12087	≤3.0	≤3.0
Water vapor transmission, MU	EN 12086	MU1	MU1
Reaction to fire, Euroclass	EN 13501-1	A1	A1
Compressive strength at 10% deformation, kPa	EN 826	60	30
Density, kg/m³	-	180±15	110±10
Length, mm	EN 823	1200, 2400	1200, 2400
Width, mm	EN 823	600, 1200	600, 1200
Thickness (increments 10 mm), mm	EN 823	30-100	50-200

THERMAL RESISTANCE R_D , m²K/W (EN 12667)									
THICKNESS, mm	30	40	50	60	70	80	90	100	110
TECHNOVENT STANDARD	-	-	1.40	1.70	1.95	2.25	2.55	2.80	3.10
TECHNOFACADE	-	-	1.30	1.55	1.80	2.15	2.45	2.70	2.95
TECHNOROOF V60	0.75	1.00	1.30	1.55	1.80	2.05	2.35	2.60	-
TECHNOROOF N30	-	-	1.35	1.60	1.90	2.15	2.45	2.70	2.95

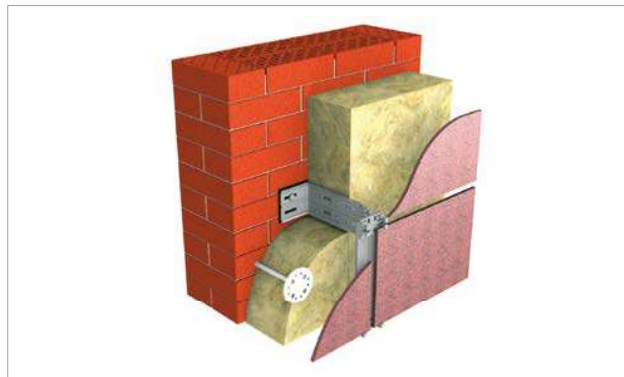
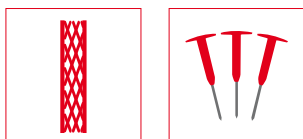
TECHNOFACADE

TECHNOFACADE is a nonflammable, water-repellent thermal and sound insulation slab of mineral wool based on basalt rocks. It is used in civil and industrial construction as thermal and sound insulation in systems for the external insulation of walls with a protective decorative layer made of thin plaster coating.



TECHNOVENT STANDARD

TECHNOVENT is a nonflammable, water-repellent thermal and sound insulation slab of mineral wool based on basalt rocks. It is used in industrial and civil construction as a thermal and sound insulation layer in ventilated facade systems (one-layer insulation).

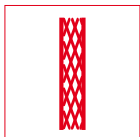


PROPERTIES	TEST METHOD	TECHNOFACADE	TECHNOVENT STANDARD
Thermal conductivity λ_D at 10°C, W/m²K	EN 12667	50-90 mm – 0.038 100-200 mm – 0.037	0.035
Tensile strength, kPa	EN 1607	15.0	5.0
Point load, N	EN 12430	400	100
Short term water absorption, kg/m²	EN 1609	≤1.0	≤1.0
Long term water absorption, kg/m²	EN 12087	≤3.0	≤3.0
Water vapor transmission, MU	EN 12086	MU1	MU1
Reaction to fire, Euroclass	EN 13501-1	A1	A1
Compressive strength at 10% deformation, kPa	EN 826	40	10
Density, kg/m³	-	145±14	80±8
Length, mm	EN 823	1000, 1200	1000, 1200
Width, mm	EN 823	500, 600	500, 600
Thickness (increments 10 mm), mm	EN 823	50-200	50-200

THERMAL RESISTANCE R_D , m²K/W (EN 12667)									
THICKNESS, mm	120	130	140	150	160	170	180	190	200
TECHNOVENT STANDARD	3.40	3.70	3.95	4.25	4.50	4.80	5.10	5.40	5.70
TECHNOFACADE	3.25	3.55	3.85	4.15	4.45	4.70	4.95	5.20	5.45
TECHNOROOF V60	-	-	-	-	-	-	-	-	-
TECHNOROOF N30	3.25	3.60	3.85	4.00	4.40	4.70	4.90	5.20	5.45

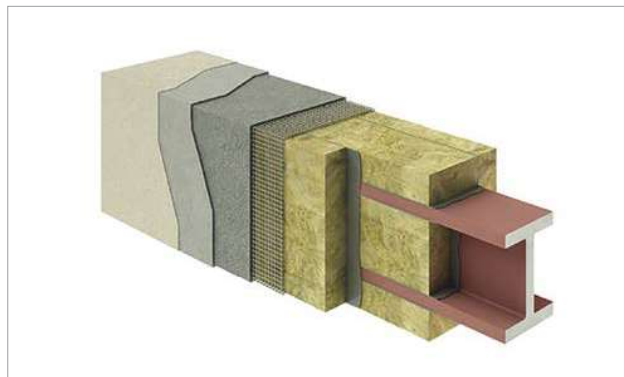
TECHNOLITE

TECHNOLITE stone wool slabs of low density are used as thermal and sound insulation in systems, where the insulation does not bear the external load (framed partitions and floors, attic floors, pitched roofs with rafters). They are also used as the first (internal) layer in two-layer thermal insulation systems of hinged ventilated facades.



TECHNOSAFING

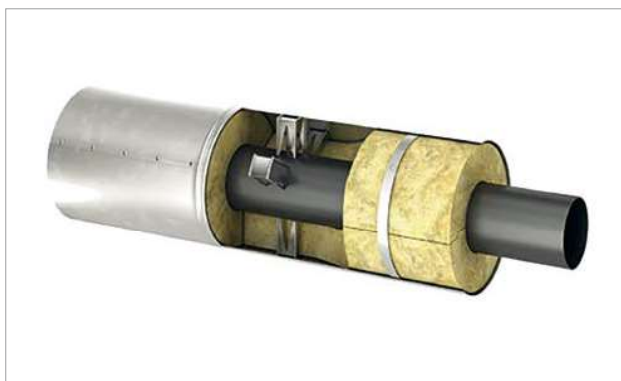
TECHNOSAFING stone wool slabs are used in industrial and civil construction as thermal insulation and fire protection of metal structures, including profiled steel decking. The material ensures fire resistance of metal structures for up to 240 minutes with no additional protective coatings required.



PROPERTIES	TEST METHOD	TECHNOLITE EXTRA	TECHNOLITE OPTIMA	TECHNOSAFING
Thermal conductivity λ_D at 10°C, W/m*K	EN 12667	0.038	0.036	0.037
Maximum service temperature, °C	EN 14706	-	-	680
Short term water absorption, kg/m ²	EN 1609	≤1.0	≤1.0	≤1.0
Water vapor transmission, MU	EN 12086	MU1	MU1	-
Reaction to fire, Euroclass	EN 13501-1	A1	A1	A1
Compressive strength at 10% deformation, kPa	EN 826	0.5	0.5	-
Density, kg/m ³	EN 1602	32±6	38±4	160±15
Length, mm	EN 822	1000, 1200	1000, 1200	1200, 2400
Width, mm	EN 822	500, 600	500, 600	600, 1200
Thickness (increments 10 mm), mm	EN 823	50-200	50-200	30-140

TECHNOCYLINDER

TECHNOCYLINDER stone wool hollow cylinders are used in industrial construction as thermal and sound insulation of technological piping and round air ducts. Depending on the inner diameter and thickness, they can be produced in the shape of cylinders with a longitudinal cut on one side, half-cylinders or segments.



TECHNOMAT WIRED

TECHNOMAT WIRED stone wool mats are used in industrial construction as thermal and sound insulation of high-temperature equipment, piping, gas ducts, electrostatic precipitators. One side of the mats is coated with either galvanized steel or stainless steel mesh and stitched with wire.



PROPERTIES	TEST METHOD	TECHNOCYLINDER	TECHNOMAT
Thermal conductivity λ_D at 10°C, W/m*K	EN ISO 8497, EN 12667	0.036	0.034
Thermal conductivity λ_D at 25°C, W/m*K	EN 12667	-	0.037
Thermal conductivity λ_D at 50°C, W/m*K	EN ISO 8497, EN 12667	0.040	0.040
Thermal conductivity λ_D at 100°C, W/m*K	EN ISO 8497, EN 12667	0.046	0.043
Thermal conductivity λ_D at 125°C, W/m*K	EN ISO 8497, EN 12667	0.051	0.045
Thermal conductivity λ_D at 150°C, W/m*K	EN 12667	-	0.053
Thermal conductivity λ_D at 200°C, W/m*K	EN ISO 8497, EN 12667	0.064	0.062
Thermal conductivity λ_D at 300°C, W/m*K	EN ISO 8497, EN 12667	0.092	0.079
Thermal conductivity λ_D at 400°C, W/m*K	EN 12667	-	0.111
Thermal conductivity λ_D at 500°C, W/m*K	EN 12667	-	0.152
Thermal conductivity λ_D at 600°C, W/m*K	EN 12667	-	0.197
Maximum service temperature, °C	EN 14707, EN 14706	680	680
Short term water absorption, kg/m ²	EN 13472, EN 1609	≤1.0	≤1.0
Reaction to fire, Euroclass	EN 13501-1	A1	A1
Density, kg/m ³	EN 13470, EN 1602	120±15	100±10
Length, mm	EN 13467, EN 822	1000, 1200	2400, 4800
Width, mm	EN 822	-	1200
Inner diameter, mm	EN 13467	18-324	-
Thickness (increments 10 mm), mm	EN 13467, EN 823	20-120	30-100
Thickness tolerance, Class	EN 14303	T9	T2



Tuas West Ave, Singapore
DUPONT



Shanghai, China
MCARTURGLLEN, LA REGGIA DESIGNER OUTLET



Jurmala, Latvia
KADO KARIM





EXTRUDED POLYSTYRENE



Extruded polystyrene (XPS) is one of the most efficient thermal insulation materials, which is widely used for thermal insulation of foundations, roofs, floors, pipelines, roads and railways. TECHNOMICOL company specialists have developed a unique technology for producing extruded polystyrene slabs with nanoscale carbon particles. That allowed to significantly increase the thermal efficiency of the material and its strength characteristics while decreasing the coefficient of water absorption to the minimum.

ABOUT THE MATERIAL

Extruded polystyrene slabs are produced by mixing polystyrene beads at an elevated temperature and pressure with the addition of a blowing agent and subsequently extruding from the extruder. TECHNOMICOL XPS has outstanding thermal insulation parameters and high compressive strength, does not absorb water, does not shrink or swell and is chemically resistant.

TECHNOMICOL extruded polystyrene has an excellent energy-saving performance due to improved physical and mechanical properties. It offers a number of valuable advantages: low thermal conductivity, high strength, biological resistance, ecological compatibility and the service life of more than 40 years.

We strive to make a perfect product – the most reliable, convenient to operate and profitable in all aspects.

PRODUCTION QUALITY

Extruded polystyrene TECHNOMICOL CARBON is produced on modern high-tech equipment and only the top quality raw materials obtained from reliable suppliers are used for the production.

Each production line of the company is equipped with a computer control system. Advanced laboratories are operating

in every factory, carrying out a continuous multistage quality control of manufactured products.

All products of TECHNOMICOL meet sanitary requirements; this applies to the manufacturing, storage, transportation and sales. XPS TECHNOMICOL CARBON ECO has passed voluntary certification “Leaf of Life”, which confirms the safety in housing construction.

Extruded polystyrene products by TECHNOMICOL Corporation present a mix of competitive price, uncompromising quality and numerous operational advantages to meet any needs of thermal insulation.

RANGE OF MATERIALS

The use of thermal insulation materials is an obligatory stage of many construction and repair processes.

A wide range of TECHNOMICOL XPS products is divided by area of application and allows the use of products in both civil and private housebuilding.

The product range includes insulation for plaster and ventilated facades, pitched and flat roofs, floors, walls, etc. The material is fastened to vertical surfaces by means of special mechanical fasteners or an adhesive mastic.

High strength properties of extruded polystyrene allow using the product for the construction of ballasted roofs. XPS with proper fastening can be used as a protective layer for waterproofing membranes. It is also used in the construction of railways and highways.



- Standard slabs of extruded polystyrene are used for thermal insulation in most application areas.



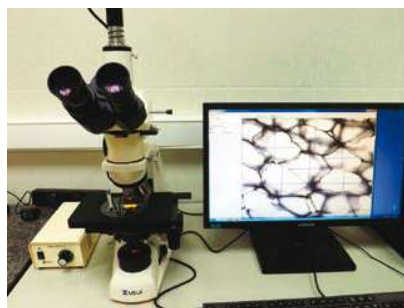
- Slabs with grooves are used for construction of wall drainage and additional thermal insulation of the foundation.



- Slabs with a rough surface are used to increase the adhesion of the facade plaster.



- Slope shaped slabs are used to create a slope on flat roofs in order to drain water from the roof to funnels.



ADVANTAGES



EFFECTIVE THERMAL INSULATION

TECHNONICOL extruded polystyrene has uniformly distributed closed-cell structure. It provides high thermal insulation, physical and mechanical properties.



HIGH STRENGTH

The strength of TECHNONICOL CARBON extruded polystyrene is in range of 25-50 t/m² that fully complies with the stringent requirements for thermal insulation materials.



DURABILITY

TECHNONICOL CARBON extruded polystyrene has a service life of at least 40 years.



GOOD FOR ANY CLIMATE

TECHNONICOL CARBON XPS can be used in a wide temperature range from -70°C to +75°C, it is suitable for application in all climatic areas of the world.



MINIMAL WATER ABSORPTION

The material has the minimal water absorption characteristics, its insulating properties remain stable throughout the whole life cycle.



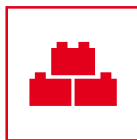
OPTIMAL DENSITY

The company specialists were able to find the optimal density for XPS products (the main factor affecting the cost of production). That allowed reducing the price, while improving the key performance parameters of extruded polystyrene, constantly increasing production capacity and continuously improving technology and processes.



CONSISTENT DIMENSIONS

The accuracy of geometric dimensions of TECHNONICOL extruded polystyrene slabs can improve the speed of installation and the quality of work.



EASY INSTALLATION

Extruded polystyrene slabs are easily cut, quickly and securely installed using adhesives or mechanical fasteners.



RESISTANT TO RODENTS

Extruded polystyrene TECHNONICOL CARBON is not a breeding ground for rodents.



BIOSTABILITY

TECHNONICOL CARBON extruded polystyrene is biological stable to molds - the main destructor of insulating materials.



CHEMICAL RESISTANCE

All TECHNONICOL materials are subject to strict sanitary and epidemiological control to obtain the corresponding conclusions. TECHNONICOL CARBON XPS is chemically resistant and is not a subject to putrefaction.

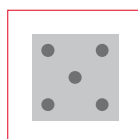


TECHNONICOL CARBON ECO

TECHNONICOL CARBON ECO extruded polystyrene is a high-performance material widely used for buildings and structures when installing the thermal insulation of basements, roofs, floors and facades.

TECHNONICOL CARBON ECO is a thermal insulation material with uniformly distributed closed cells, which does not swell, shrink or absorb water. It is chemically resistant and is not susceptible to putrefaction. The high strength of the material allows receiving an even and simultaneously rigid substrate that substantially increases the durability of the whole thermal insulation system. TECHNONICOL CARBON ECO contains nanoscale carbon particles, which allow to significantly increase the thermal efficiency of the material.

It can be supplied with flat or L-shaped edges.

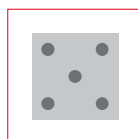


TECHNONICOL CARBON ECO FACADE

TECHNONICOL CARBON ECO FACADE extruded polystyrene is a high-performance material specially designed for thermal insulation of plaster facades and plinth beams. It can also be used for other structures with increased requirements for the adhesion of thermal insulation slabs to the substrate.

TECHNONICOL CARBON ECO FACADE is a thermal insulation material with milled surfaces and micro-grooves, which appreciably increase the adhesion of the facade plaster. The slabs with uniformly distributed closed cells do not swell, shrink or absorb water. They are chemically resistant and are not susceptible to putrefaction. The high strength of the material allows receiving an even and simultaneously rigid substrate that substantially increases the durability of the whole thermal insulation system. TECHNONICOL CARBON ECO FACADE contains nanoscale carbon particles, which allow to significantly increase the thermal efficiency of the material.

It can be supplied with flat or L-shaped edges.



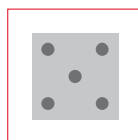
PROPERTIES	TEST METHOD	CARBON ECO	CARBON ECO FACADE
Thermal conductivity λ_D , W/m ² K	ASTM C177	0.028-0.034	0.028-0.034
Thermal resistance (depending on thickness), R_D , m ² K/W	ASTM C177	0.29-2.94	0.29-2.94
Compressive strength at 10% deformation, kPa	ASTM D1621 (EN 826)	≥200	≥200
Long term water absorption by immersion, %	ASTM C272 (EN 12087)	≤0.7	≤0.7
Reaction to fire – ignitability, Euroclass	EN ISO 11925-2	F	F
Length, mm	EN 822	1180-1500 (±8) 1500-4000 (±10)	1180-1500 (±8) 1500-4000 (±10)
Width, mm	EN 822	580-650 (±8)	580-650 (±8)
Thickness, mm	EN 823	10-40 (±2) 50-100 (-2; +3)	10-100 (±1)

TECHNONICOL CARBON PROF 300

TECHNONICOL CARBON PROF 300 extruded polystyrene is a high-performance material widely used for buildings and structures when installing the thermal insulation of basements, roofs, floors and facades. It is also used in the construction of railways and highways.

TECHNONICOL CARBON PROF 300 is a thermal insulation material with uniformly distributed closed cells, which does not swell, shrink or absorb water. It is chemically resistant and is not susceptible to putrefaction. The high strength of the material allows receiving an even and simultaneously rigid substrate that substantially increases the durability of the whole thermal insulation system. It contains nanoscale carbon particles, which allow to significantly increase the thermal efficiency of the material.

It can be supplied with flat or L-shaped edges. A variation with a slope shape is available for the creation of a slope of 2.1 or 4.2% in order to drain water from the roof to funnels.



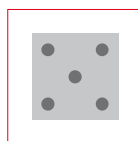
TECHNONICOL CARBON SOLID 500

TECHNONICOL CARBON SOLID 500 extruded polystyrene is a high-performance material widely used in buildings and structures when installing the thermal insulation of basements, operated roofs and loaded floors. It is also used for thermal insulation of foundations of transportation facilities.

Record high compressive stress performance of the material at deformation makes TECHNOMICOL CARBON SOLID 500 the best choice for the most important and complicated projects.

TECHNONICOL CARBON SOLID 500 is a thermal insulation material with uniformly distributed closed cells, which does not swell, shrink or absorb water. It is chemically resistant and is not susceptible to putrefaction. The high strength of the material allows receiving an even and simultaneously rigid substrate that substantially increases the durability of the whole thermal insulation system. It contains nanoscale carbon particles, which allow to significantly increase the thermal efficiency of the material.

It can be supplied with flat or L-shaped edges.



PROPERTIES	TEST METHOD	CARBON PROF 300	CARBON SOLID 500
Thermal conductivity λ_D , W/m*K	ASTM C177	0.028-0.034	0.028-0.034
Thermal resistance (depending on thickness), R_D , m ² *K/W	ASTM C177	1.76-7.042	1.379-3.448
Compressive strength at 10% deformation, kPa	ASTM D1621 (EN 826)	300-350	≥500
Long term water absorption by immersion, %	ASTM C272 (EN 12087)	≤0.7	≤0.7
Reaction to fire – ignitability, Euroclass	EN ISO 11925-2	E	E
Length, mm	EN 822	1180-1200(±15)	1180-1200(±15)
Width, mm	EN 822	580-600(±8)	580-600(±8)
Thickness, mm	EN 823	50-120 (-2; +3) 130-200 (-2; +8)	40, 50, 60, 100 (-2; +3)



Horní Počernice, Czech Republic
P3 PARK, HALL IX



Klaipėda, Lietuva
ŠVYTURIŲ ARENA



Parndorf, Austria
CINEPLEXX PARNDORF

A close-up photograph of a stack of white, rectangular PIR (Polyisocyanurate) insulation panels. A thin, reflective metal sheet is placed on top of the stack. The panels are stacked in a way that shows their edges and the smooth surface of the metal. The background is a solid, vibrant red.

PIR



PIR thermal insulation by TECHNOMICOL based on rigid polyisocyanurate foam is a new generation of thermal insulation materials that significantly surpasses traditional solutions in terms of technical characteristics and consumer values. The material has long service life due to the minimal water absorption, resistance to the destructive effects of aggressive environments, as well as rotting. At the same time, it does not emit harmful substances under any operating conditions being an environmentally friendly and safe building material.

ABOUT THE MATERIAL

Polyurethane was first discovered and tested by Otto Bayer with a group of researchers in 1937. Since then polyurethane has firmly entered our lives, and now it is widely used in many productions: from clothing membranes to steering wheels, bumpers and many other parts of a car. This material is harmless to health and does not irritate the skin. Therefore, medical devices or, for example, heart valves are made primarily of polyurethane. Rigid polyurethane foam is the most common insulation material used in refrigerators due to its properties and compliance with the most stringent requirements.

Polyisocyanurate, or simply PIR, is a modified and improved polyurethane foam, which is known in the world since 1968. Nowadays, in the context of constantly rising energy prices, energy-saving materials like PIR are becoming extremely popular in various industries.

PRODUCTION QUALITY

LOGICPIR thermal insulation by TECHNOMICOL is a polymer framework of many closed and gas-filled cells, which form a rigid homogeneous structure with high strength. The molecular ring structure of the polymer with strong

chemical bonds and the high density of these bonds between the elements makes their destruction difficult. Closed rigid cells make up more than 95% of the volume of the material and provide it with:

- record-low thermal conductivity;
- mechanical strength;
- minimal water absorption;
- high fire resistance.

Thus, thanks to its chemical continuity, PIR boards by TECHNOMICOL retain all the positive properties of polyurethane.

APPLICATION IN ROOFING SYSTEMS

The application of LOGICPIR boards solves a very important problem for every investor – the construction of a durable roof with a long maintenance-free service life. Several factors affect the durability of a roof: proper design and installation, selection of suitable building materials and components, external factors and weather conditions. One of the key points causing the damage to the system during installation and operation is dynamic loading. Roofing systems with PIR boards by TECHNOMICOL were specially designed to address this factor. They are recommended for use on the roofs intended for frequent attendance of personnel, for example, for adjustment of the equipment installed on the roof.

LOGICPIR thermal insulation boards are a great solution for use in different roof structures: pitched and flat, exposed and ballasted (including green roof), operated and non-operated.

The material can be used with various types of substrate, e.g. profiled metal deck, reinforced concrete, wood, OSB-3 boards, old roof covering, etc. The application of prefabricated slope shaped boards allows to create a slope for fast and convenient water drainage.

RANGE OF MATERIALS

The use of thermal insulation materials is an obligatory stage of many construction and repair processes. The systems with LOGICPIR boards by TECHNOMICOL are used for thermal insulation of flat and pitched roofs, floors, walls and facades.

- Standard PIR thermal insulation boards are used for thermal insulation in most application areas.

- Slope shaped boards are used to create a slope of 1.7 or 3.4% on flat roofs in order to drain water to funnels.

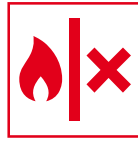


ADVANTAGES



RECORD-LOW THERMAL CONDUCTIVITY

Being an energy-saving material, LOGICPIR boards by TECHNOMICOL have a record low thermal conductivity starting from 0.022 W/m*K. The boards are available with L-shaped edges, so they fit tightly together and thus prevent thermal bridges.



HIGH FIRE RESISTANCE

PIR boards by TECHNOMICOL are a non-flammable material. When in contact with an open flame, polymer burns on the surface only. This creates a charcoal skin, which is an effective defence against further damage to the polymer.



RELIABILITY AND DURABILITY

Throughout more than 50-year service life, LOGICPIR boards retain its qualities thanks to the structure of the material: a rigid cell does not release a permanent gas, providing unique thermal characteristics of polyisocyanurate foam. The material functions effectively within a temperature range from -65°C to +110°C being suitable for use in any climate.



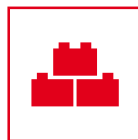
DYNAMIC LOAD RESISTANCE

The rigidity of the substrate is an indispensable parameter for maintaining the performance of the waterproofing material and the durability of the roofing system in general. LOGICPIR boards with a compressive strength of 150 kPa provide high resistance against deformation due to operation loads and comply with class 2 for the dynamic load (EN 826).



LIGHTWEIGHT

The use of PIR boards by TECHNOMICOL minimizes an additional load on the supporting base and allows the installation of thermal insulation without reinforcing the supporting structures, which is especially important for roof renovation. Transportation costs are substantially reduced as well.



EASY INSTALLATION

Thanks to the light weight and minimum thickness of LOGICPIR boards, even one person can easily perform the installation of the insulation layer. In addition, the availability of special prefabricated slope shaped boards significantly reduces the time of installation of the whole roofing system as well.



SMALL THICKNESS

Due to the record-low thermal conductivity of LOGICPIR boards by TECHNOMICOL, a smaller thickness of the insulation layer is used to achieve the required level of thermal resistance. The minimum thickness allows saving the maximum space.



MINIMAL WATER ABSORPTION

The structure of LOGICPIR thermal insulation board consists of closed rigid cells, which do not allow water to come into the material, while the composite facings provide an additional vapor barrier. It is resistant to rotting, including in conditions of high humidity.



ECOLOGICAL COMPATIBILITY

Polyurethanes are widely used in the manufacture of car parts, sports equipment, furniture, mattresses and pillows, shoes and clothes, adhesives and sealants, as well as many other usual things around us. LOGICPIR thermal insulation by TECHNOMICOL is a new generation of polyurethanes that is absolutely environmentally friendly and safe for human health and approved for use in children's and medical institutions.

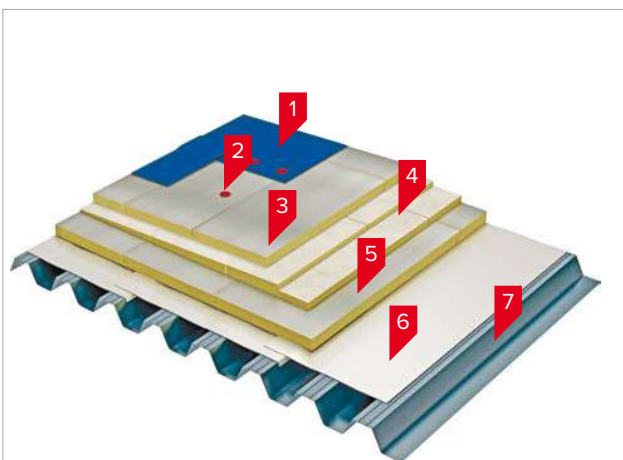


LOGICPIR

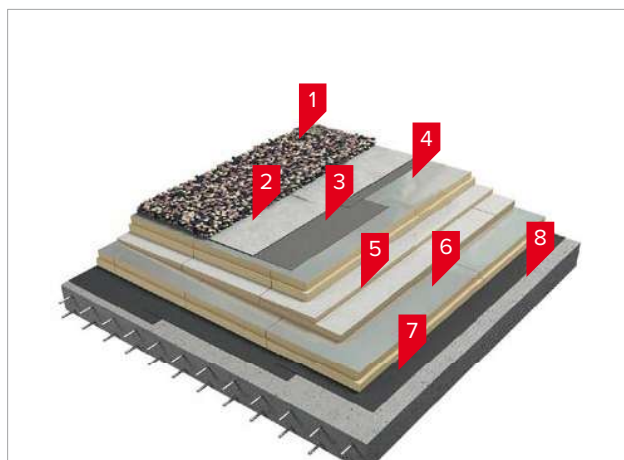
PIR THERMAL INSULATION BOARD

LOGICPIR is an innovative thermal insulation board made of PIR (Polyisocyanurate), which is used in flat and pitched roofing systems, floors, walls and facades. Being very rigid and perfectly flat, LOGICPIR is an ideal substrate for roofing materials. It has high compressive strength and a record low thermal conductivity value.

LOGICPIR is available with 2 types of the surface: aluminium foil or fiberglass mat. It can be supplied with flat or L-shaped edges. A variation with a slope shape is available for the creation of a slope of 1.7 or 3.4% in order to drain water from the roof to funnels.



1. PVC membrane LOGICROOF V-RP
2. Mechanical fastening
3. Thermal insulation board LOGICPIR
4. Thermal insulation board LOGICPIR Slope
5. Thermal insulation board LOGICPIR
6. Vapor barrier VAPORSTOP CA 500
7. Corrugated steel sheet



1. Ballast
2. Geotextile 300 g/m²
3. PVC membrane LOGICROOF V-GR
4. Thermal insulation board LOGICPIR
5. Thermal insulation board LOGICPIR Slope
6. Thermal insulation board LOGICPIR
7. Vapor barrier VAPORSTOP CA 500
8. Reinforced concrete substrate

PROPERTIES	TEST METHOD	LOGICPIR
Thermal conductivity λ_D , W/m*K	EN 13165	0.022 (aluminium foil coating) 0.026 (fiberglass coating)
Thermal resistance (depending on thickness), R_D , m ² *K/W	EN 12667	1.35-6.81 (aluminium foil coating) 1.15-5.77 (fiberglass coating)
Compressive strength at 10% deformation, kPa	EN 826	≥150
Long term water absorption by immersion, %	EN 12087	≤1
Reaction to fire – ignitability, Euroclass	EN 13501-1	E
Board sizes, mm	EN 822	1200×600, 2400×1200
Thickness (increments 10 mm), mm	EN 823	30-150
Surface type	-	aluminium foil or fiberglass mat

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