TECNOCOAT CP-2049 - COLD POLYUREA MEMBRANE FOR WATERPROOFING AND COATING

Two-component liquid, hand-applied polyurea to form a solid, aromatic, completely adhered to the substrate, seamless, without joints or overlaps, watertight and waterproof membrane to be used on new buildings or refurbishments. It can be applied by short-nap acrylic wool roll, notched trowel.

USES

For application in the following situations:

- Sloped/flat walkable roofs, IRMA, balconies, and overhangs.(ETA 20/0253)
- Green roof and walls (ETA 20/0253)
- Structural concrete slabs, and concrete walls and foundations
- Swimming pools, artificial lakes, and ponds. Near seawater
- Asbestos roofs (on TECNOFOAM, spray polyurethane foam system)
- To repair/recoating the hot-spray TECNOCOAT membranes range

NOTE: call our technical department about the application to other substrates or scopes of use

Minimum thickness	±1.5 mm
Pot-life	20~25 min
Dry time	±3 hours
Application method	By squeeze or roll

COLORS

	Gray

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GENERAL SPECIFICATIONS

- Two-component liquid, hand-applied polyurea to form a solid, aromatic, completely adhered to the substrate, seamless, without joints or overlaps, watertight and waterproof membrane to be used on new buildings or refurbishments. It can be applied by short-nap acrylic wool roll, notched trowel.
- It holds an ETA 20/0253, issued by EOTA (European Organization for Technical Assessment). under the EAD 030350-00-0402 guide, specific approval for "**Liquid Applied Roof Waterproofing Kit, based on pure polyurea** " working life 25 years (W3), at 1.2 mm thickness, ponding water admitted
- Green roof application certified, **root resistance**,according to the EN 13948 (ETA 20/0253)
- The application method is by the squeegee, trowel or roll in once coat(self-levelling system).
- Due to its resistance, it can be walked on and it will accept a rough finish to make it non-slip. (using Silica Sand or Tecnoplastic range aggregates)
- A ceramic floor can be placed on top. In this case, we recommend applying a thin coat of Primer PU-1000 or Primer PU-1050, consumption of around 50 to 60 g/sqm, and spreading Silica Sand on top, consumption of around 700-1000 g /sqm, to improve mechanical anchorage.
- Joints and any type of union are saved since the finish is uniform and in one piece, providing a surface with optimal maintenance and cleaning.
- His properties allow it to adhere to any surface such as concrete, ceramic tiles, metals, spray polyurethane foam (Tecnofoam), plywood(OSB), asphalt/bituminous sheets. In any case or material, the surface must be consistent, firm, clean, and dry when the products are applied. Recommended applying directly on the concrete deck.
- It should be applied in dry conditions avoiding the presence of humidity or coming from the surface to be coated or the substrate, whether at the time of application or subsequently (pressure from phreatic water level). In the event there is humidity in the substrate at the time of application.
- It is an aromatic membrane and, even though it is stable against solar radiation it requires solar radiation protection (UV rays) to do not lose its physical and mechanical properties. Therefore, our approved system (under ETA 20/0253), incorporates a protective polyurethane colored aliphatic resin, Tecnotop 2C, for use in the absence of other physical protection elements. You can apply Tecnotop S-3000, Tecnotop 2CP or Tecnotop 1C also.

YIELD

The recommended minimum thickness is up to 1.5 mm., so the yield will be up to 2.3 kg/sqm (DFT) applied on ONE (maximum thickness per coat 0.7 mm./ 1.2 kg/sqm) or various coats , depending on the application method and application conditions.

PACKAGING

Metallic tins in two formats:

- SMALL KIT:4.80 kg and 0.20 kg
- LARGE KIT: 19.2 kg and 0.8 kg

SHELF LIFE

12 months at temperatures between 5 and 35° C *(41 to 95 ºF)*, provided it is stored in a dry place. Once the tin has been opened, the product must be used.

APPLICATION METHOD

The following factors prior to application should be checked:

- Previous preparations of the substrate through physical processes (substrate preparation (sanding, polishing,

shot blasting, or milling) for laitance and reliease agents as well as for the opening of the surface pore, achieving a suitable anchorage profile. (CSP 3 -4-5, according to the ICRI)
- Existing holes or areas with a lack of material must be repaired using some or our epoxy resins: Primer EP-1020/Primer EP-1010
- Joint fillings with Mastic PU
- In existing dilatations joints: remove old material, clean, and fill with Mastic PU. Use also Tecnoband 100 to cover, if necessary.
- Joint filling for installation, work and consolidation of surfaces.
- General cleaning of the substrate, removing existing dust, dirt, grease or efflorescence. The substrates must be resistant and cohesive.

Concrete substrate

- Concrete should be completely cured (concrete curing takes 28 days) or, in any case, the maximum level of humidity allowed for the substrate should be verified, depending on the primer used.
- Concrete must have a surface with a correct planimetry, high surface resistance, eliminating laitance or release agents, without excessive irregularities. Therefore, the previous action of sanding, polishing, milling or shot-blasting will be assessed by the applicator to achieve a preparation of the support according to ICRI Guide 03732, CSP values 3 to 5.
- Cracks and damaged areas must be repaired using epoxy mortar Primer EP-1020/Primer EP-1010.
- Mastic PU must be used on fissures or small cracks on the surface.
- In joints: remove old material, clean and fill with Mastic PU. Complement with a Tecnoband 100 band on the upper part.
- In structural/expansion joints: remove old material, clean and fill with Mastic PU. Complement with specific elastic bands and Tecnoband 100
- Clean up well and eliminate all contaminants from the elements, such as dust or chippings, using dry methods preferably.
- Apply the membrane
- Application of the aliphatic polyurethane resin for protection against UV rays Tecnotop 2C/2CP/1C

Ceramic tiles substrate

- Ceramic surfaces should not have empty joints or loose elements or parts. These should be filled with Mastic PU mastic or mortar, according to their size.
- Existing joints or seals: remove the old material, clean up and fill with Mastic PU and reinforced using Tecnomesh 100
- Sanding with specific equipment. Thereby, to remove moss or solids particles bonded to the support, and opening the pore.
- Clean up, using a vacuum method.
- Primer application using Primer EP-1040, total yield 100-150 g/sqm, or Primer EPw-1070, total yield 150-200 g/sqm
- Apply the membrane
- Application of the aliphatic polyurethane resin for protection against UV rays Tecnotop 2C/2CP/1C

NOTE: For other types of supports, weather conditions or the substrate to be applied, consult our technical department.

REPAIR AND OVERLAPS PROCESSES

REPAIR

This cold membrane has very good adhesion on the substrates. To improve it In cases where the membrane mus be repaired by accidental causes, or assembly procedures not covered installations, shall be as follows:

- Cut, removal of the affected area and/or damaged surface
- Sanding this area extending about 20~30 cm. around the perimeter, for overlapping security

- Cleaning (vacuuming) of waste generated (powder, dust...); if it's possible don't use water, and if used, support humidity value; ketones applicability based solvents for reducing this type of surface cleaning
- Apply a thin layer (100-150 g/sqm) of polyurethane resin Primer PU-1030, Primer PU-1050, Primer PU-1000.
- Light spread Silica Sand over the wet primer applied before
- Wait for the total drying
- Apply the membrane
- Application of the aliphatic polyurethane resin for protection against UV rays Tecnotop 2C/2CP/1C

OVERLAPS
In cases has been exceeded recoat time (24~48 hours), so the waiting time between jobs is prolonged, proceed as follows:

- Sanding strip longitudinal overlap of about 20~30 cm. wide
- Cleaning (vacuuming) of waste generated (powder, dust...)or existing dust; if it's possible, do not use water, and if it's used, check the support humidity value; ketones applicability based solvents for conducting this type of surface cleaning
- Apply a thin layer (100-150 g/sqm) of polyurethane resin Primer PU-1030, Primer PU-1050, Primer PU-1000.
- Light spread Silica Sand over the wet primer applied before
- Wait for the total drying
- Apply the membrane
- Application of the aliphatic polyurethane resin for protection against UV rays Tecnotop 2C/2CP/1C

HEALTH AND SAFETY

These safety recommendations for handling, are necessary for the implementation process as well as in the pre and post, on exposure to the loading machinery.

- Respiratory Protection: When handling or spraying use an air-purifying respirator.
- Skin protection: Use rubber gloves, remove immediately after contamination. Wear clean body-covering. Wash thoroughly with soap and water after work and before eating, drinking, or smoking.
- Eye / Face: Wear safety goggles to prevent splashing and exposure to particles in the air.
- Waste: Waste generation should be avoided or minimized.
- Incinerate under controlled conditions in accordance with local laws and national regulations.
- Re-occupancy of the work site without respiratory equipment is minimum 24 hours providing the correct ventilation for the area sprayed.
- Contractors and applicators must comply with all applicable and appropriate guidelines for storage and safety guidelines.

Consult the material and safety data sheet of the products of the system.

TECHNICAL AND CHEMICAL PROPERTIES (ACCORDING TO ETA 20/0253)

PROPERTIES	RESULT
Density ISO 1675	1.40±0.05 g/cm³
Viscosity ISO 2555	3,000 ~ 4,000 cps
Density compounds A/B ISO 1675	1.45 ±0.05 g/cm³ / 1.05 ±0.05 g/cm³
Viscosity compounds A/B ISO 2555	3,000~4,500 cps / 250~500 cps
Solids content ISO 1768	>85%
VOC content (volatile organic compounds)	250~275 g/l comp. A + 0 g/l comp. B
Tensile strength ISO 527-3	6~8 MPa
Elongation at break ISO 527-3	>500 %
Hardness Shore A/D DIN 53.505	>85 / >35
Adhesion to concrete/steel/Polyurethane	1.9MPa / 1.6MPa / 0.2MPa
Anti roots certification EN 13948	PASS
Fire reaction EN 13501	NPA
External fire performance EN 13501	Broof classification (t1)+ (t4)
Pot-life	20~25 minutes
Dry time	±3 hours
Total cured time	±6 days
Working-life	W3 25 years at 1.2 mm thickness
Climatic zone	S (hard weather)
Water vapor resistance EN 1931	μ=2,455
Water-vapor permeability EN 1931	14 g/sqm/day
Roof slope	S1~S4, zero slope, ponding water admitted
Temperatures / User loads	P4:TH2// P3:TH4, concrete / P1:TH2, PU (Spray polyurethane foam)
Application temperature range (substrate and environment)	3~35 ºC *(37 to 95ºF)*
Maximum environment humidity	±85 %

Results were performed in the laboratory at 23ºC(73ºF)and 50% RH, under controllable conditions. These values may vary depending on the application, climatology, or substrate conditions.

reader's risk.
All data furnished refers to standard production using manufacturing testing tolerances. The product user, and not Tecnopol Sistemas S.L.U., is responsible for determining the suitability and compatibility of our products for the final user's intended use.
The liability of Tecnopol Sistemas S.L.U.and its affiliates for all claims is limited to the purchase price of the material.
Products may be toxic and require special precautions in handling. Users should obtain detailed information on toxicity, together with proper shipping, handling and storage procedures, and comply with all applicable safety and environmental standards.
No freedom from any patents or other industrial or intellectual property rights is granted or to be inferred.