

THIS IS AN ONGOING CONTINUOUS COSTLY PROCESS



ElaProof™ a Multifunctional Anti-Weathering Waterproof Coating

Environmentally safe—Non-toxic

The Problem

Due to the natural weathering processes, most surfaces will expand and retract. Some factors negatively affect surfaces and coatings, including UV light, salt, acids, chemicals, etc. They will crack and lose the protection property in a few years, resulting in more frequent and higher maintenance costs. Most coatings contain very harmful compounds such as isocyanates that cause occupational asthma, contact dermatitis, or respiratory irritation. Rusty steel surfaces must be sandblasted, primed, and coated. This method is very environmentally harmful and imposes a serious health hazard.

The Solution with ElaProof™?

ElaProof™ acts like an extremely elastic Gore-Tex waterproof coating. The coating breathes, letting gases through from the inside and retaining water from the outside. The completely non-toxic, isocyanate-free, one-component, water-soluble coating can be immediately sprayed, rolled or brushed onto any cleaned, even damp surface. Most materials can be sealed and glued with ElaProof™.

ElaProof™ Video:

<https://kaksiconsultants.com/elaproof>



EU Green Certified

EASY AND FAST TO USE

- Instantly ready to use
- No mixing of components
- Saves time. Makes work easier!

REMAINS READY TO USE IN A CLOSED CONTAINER

- No restricted working time
- The single-component material remains as it is in a closed container

SAFE FOR THE USER

- No hazardous chemical vapors
- No constituents that are harmful to the skin

NO DIFFICULT PROTECTIVE EQUIPMENT REQUIRED

- Handling ElaProof™ does not require special protective equipment
- ElaProof™ is safe to transport

ELAPROOF™ IS VERSATILE AND DURABLE

- ElaProof™ creates an elastic waterproof protective layer for most construction surfaces, for example, concrete, metal and wood surface
- Typical uses of the ElaProof™ coating include for example, repair roofs and structures, waterproofing of plinths and socle walls
- The coating extends the life span of the roofs by decades

TOOLS AVAILABLE FOR REUSE

- The tools can be washed with water after use
- Water soluble for washing indoors or outdoors
- Painting equipment ready for the next use

NO NEED TO RUSH

- Dries quickly, but allows enough time for the work stage to be carried out
- The hardening of the insulation substance does not dictate the pace of work

ElaProof™ Interior Treatments

The most extreme use....

The repair of the drying chamber and tunnels in the sawmills made of concrete or carbon steel has proved that ElaProof™ is the most outstanding solution for the protection of the components against corrosion under extreme conditions. During the process conditions reach temperature + 158°F, relative humidity almost 100%, and extremely aggressive vinegar and formic acid from the dried wood. The walls and ducts can be protected with ElaProof™, as the practice proves.

Time-lapse after applied to concrete walls in the saw mill drying chamber



Before ElaProof™ 2005



After 2005 - 2022



Before ElaProof™ 2005



After 2005 - 2022

The manufacturing result of an improved sawmill storage environment is by ElaProof™ is a high-grade product that is ready for sale without loss.



ElaProof™ Exterior Treatments

Roofing Tiles



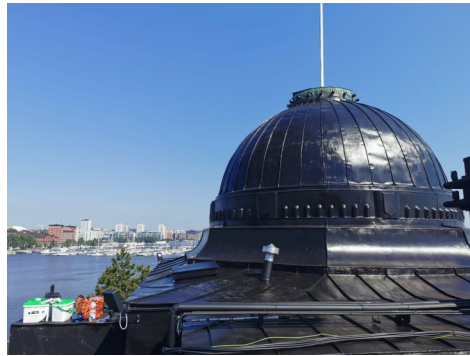
Before

After

Helsinki Casino Roof



Before



After

Roofing



Tin roof - Before ElaProof™



Tin roof - After ElaProof™

Foundation



Foundation - Before ElaProof™



Foundation - After ElaProof™

ElaProof™ Road, Bridge and Tunnel

Infrastructure Application

According to (DIN EN 1542) test, a steel and a concrete slab were coated with Ela-Proof in a laboratory. Afterwards, ElaProof™ was coated with a 365°F hot asphalt layer and the layer was rolled over. After cooling, the asphalt could no longer be removed, not even with a hammer and chisel. ElaProof™ seals the steel and concrete slabs against water and road salt. A test was conducted by a large asphalt company in Scandinavia.



ElaProof™ forms a bonded substrate between Asphalt and Concrete



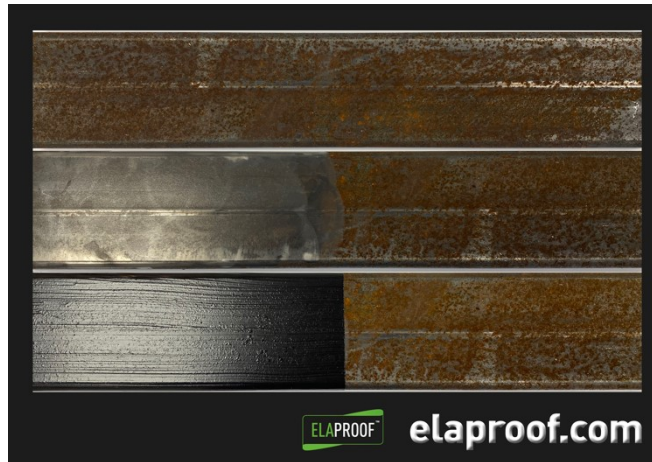
Weathering, rain, snow, ice, road salt, and temperature changes... Pot Holes!



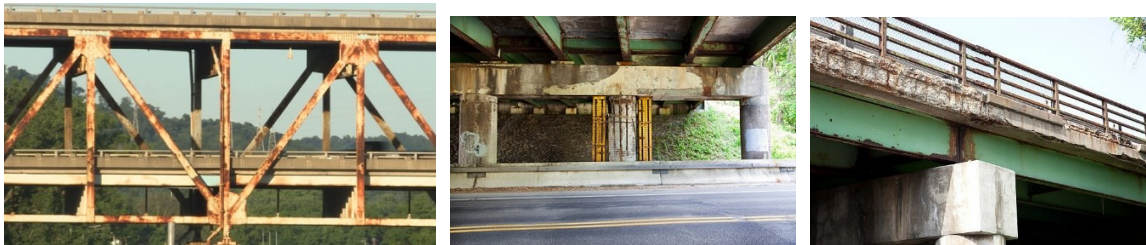
If ElaProof is layered on the substrate, then pot holes could be prevented from frequently occurring.



Rusted steel beams can be protected for decades with ElaProof™ without sandblasting! Just wash off the dirt before coating.



ElaProof™ can provide many decades of protection for various types of structures resulting in huge cost savings and no negative environmental impact!



What ElaProof™ can protect?

- Leaking bitumen flat roofs coated are sealed for decades with ElaProof™ .
- Leaking tiled roofs, including rusted tin roofs and penetrations are permanently sealed against water leakage with ElaProof™ . Around the chimney you get very water tight seal with ElaProof™ .
- Materials made of glass, plastic, brick, wood, steel, concrete, etc. can be reliably bonded together with ElaProof™ for years.
- ElaProof™ offers decades of reliable water protection for foundations and basements, ducts, walls, sewer renovations, interior fittings, and much more.

What are the advantages of ElaProof™ ?

- Only remove loose particles first before applying ElaProof™ .
- Bridging capability on concrete surfaces: 0,4 inches
- A 4 inch ElaProof™ strip can be stretched up to 8 times or 32 inches without damage to the strip. After release, it will return to its normal size. This expansion can be repeated indefinitely with the same results, because ElaProof™ is extremely elastic!
- ElaProof™ can be applied on a damp surface, and after application the surface will become dry. You don't have to wait until the surface is absolute dry, which saves time and money.
- ElaProof™ protects from harmful UV rays, acids, and extreme cold and heat. If you desire a particular color you can paint over ElaProof™ .
- Holes in roofs can be sealed with ElaProof™ .
- If ElaProof™ is applied on the roof and it is accidentally punctured or torn it can be resealed with ElaProof™ .
- ElaProof™ is completely environmentally friendly, causing no harm for humans, animals or the environment.
- M1/EC1 tests passed (ElaProof™ is safe to use interior).
- ElaProof™ does not burn by itself.
- When applying ElaProof™ , especially on large surfaces, workers do not need use respirators, only a mask is needed.

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<https://drive.google.com/file/d/1JMrZ48WSzm7uJJQvRdfUpU0I9W0rWmA/view?usp=sharing>

ElaProof™ Scientifically Tested

- crack bridging capability according to EN 1062-7
- safety and evaluation of conformity of products and systems to be used for surface protection of concrete, to increase the durability of concrete and reinforced concrete structures CE EN 1504-2
- adhesion EN 1542:1999
- tensile strenght ISO 527-1:1993
- elongation at break ISO 527-2
- tear strenght ISO 527-1:1993
- shore hardness EN 868:2003
- wear resistance EN ISO 5470-1 (Taber-wear resistant)
- impact resistance EN ISO 6272-1
- diffusion resistance EN 12572
- waterproofness EN 1928 and after alkaline exposure
- aging and temperature resistance at VTT (Technical Research Centre of Finland, since 1942) simulation over 70 years
- electric conductivity
- chemical resistance
- Screed material and floor screeds - Screed materials - Properties and requirements EN 13813

- **tile glued to concrete with ElaProof™ has an adhesion strength of (20°C): 0.93-1.3 N / mm²**
- **water vapor diffusion coefficient: 7,21 x 10⁻¹⁴ (ä kg/(m s Pa))**
- **water vapour resistance: 5,83 x 10⁹ (Zp = m² s Pa/kg)**
- **protection and repair of concrete asphalt coated structures - measurement of bond strength by pull-off DIN EN 1542:1999.**
- **Fire classification of construction products excluding roof coverings is made according to classification C-s1,d0 and BROOF (t2) standard EN 13501-1**

Reference

The concrete walls in the sawmill chambers have been protected by ElaProof™ one-time coating since 2005. ElaProof™ was the only coating that survived the harsh conditions in the chamber of 100% relative humidity, a temperature of 157 degrees Fahrenheit and acids from the drying wood.

ElaProof™ has been included as a building material supplier in the system of the third largest construction company in Germany.

Over 1,000,000 sq ft of roofs in Denmark, Finland and Sweden were protected with the ElaProof™ .

Technical specifications

<https://www.ElaProof.com/en/instructions-and-technical-data/>

What are Isocyanates?

Isocyanates are widely used in the manufacture of building materials. These include compounds classified as potential human carcinogens and known to cause cancer in animals. The main effects of hazardous exposures are occupational asthma and other lung problems, as well as irritation of the eyes, nose, throat and skin.

We would be happy to answer any further questions and present you with practical solutions that are not possible with other coatings.



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ElaProof™ has proven environmentally safe and meets and exceeds EPA standards with respects to EU Green certification.




Kaksi Consultants LLC
 Finnish Innovations



CERTIFICATE

ELAPROOF WORKS AS A RADON BARRIER

Radon gas in indoor air inside the buildings is a common problem in Finland. Radon is an odourless, tasteless, colourless radioactive noble gas that increases the risk of developing lung cancer. As a result, the Ministry of Social Affairs and Health in Finland has set maximum limits for radon concentrations indoors of 300 Bq/m³ in old buildings and 200 Bq/m³ in new buildings.

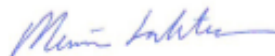
One option to prevent radon gas leaks indoors is to seal potential leakage pathways in buildings. The most common leakage path is the shrinkage gap between the concrete slab and the plinth, through which the under pressure in the apartments absorbs the radon-containing air from the soil. In addition, the penetrations and the various joints in the building foundation can form a significant leakage pathway for radon-containing air. The ElaProof coating can be used for sealing various leakage routes in buildings.

Radon transmittance through ElaProof coating has been examined in RISE, Sweden (Research Institutes of Sweden AB, impartial research institute) in accordance with SP Method no. 3873.

The results are presented in Table 1. Both measured values meet the requirements of the Norwegian Building Research Institute SINTEF Byggforsk for radon membranes (radon transmittance < 2·10⁻⁸ m/s and radon resistance > 5·10⁷ s/m). According to RISE measurements, ElaProof coating prevents radon gas leakage by more than 98%.

Taulukko 1. Radon transmittance and resistance results. *

Material	Thickness (mm)	Radon transmittance, P (m/s)	Radon resistance, Z (s/m)
ElaProof	0,8-1,2	1,2·10 ⁻⁸	8,5·10 ⁷



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*The original test report is available on request.