

Domoreflex 102 Nano Fiber

Fiber hybrid technology waterproofing roof coating without solvents

DOMOREFLECT 102 Nano Fiber is a fiber, hybrid technology, elastomeric roof waterproofing coating modified with **aliphatic polyurethane** and **nanomolecular resins**, environment friendly. It offers excellent **adhesion** and resistance to extreme variations in temperature, environmental pollution and UV radiation. It creates a fully waterproof, water vapor permeable membrane of **enhanced layer thickness** and high reflectivity which maintains a low temperature on the external surface during summer months.

Field of application

DOMOREFLECT 102 NANO FIBER is suitable for application on:

- Flat or inclined roofs
- Hard to waterproof points and cracks using reinforcement mat
- Vents, chimneys
- All construction materials (mortar, concrete, brick, stone, roof tile, metallic surfaces, etc.)
- Old waterproofing layers (acrylic, polyurethanic, etc.), provided that the surface has been cleaned mechanically
- Roofs with installed equipment (solar panels, air conditions. etc.)

Advantages

- Fast drying
- Enhanced layer thickness of dry film → **0,67mm**
- Excellent adhesion to the substrate
- Can be applied also on uneven substrate
- Elastic, bridges hair cracks
- Creates an impermeable waterproofing membrane with resistance to stagnant water
- Water vapor permeable, allows transpiration of the substrate
- High resistance to temperature fluctuations (-30°C to +90°C)
- Resistant to UV rays
- Easy to clean, does not retain dust or dirt
- User friendly
- Environment friendly

Method of use

Substrate condition:

Clean the substrate from any loose pieces, as well as peeled off paints and oils. The substrate must be free of moisture and standing water.

Prime with acrylic water-based DOMOREFLECT PRIMER or with DOMOREFLECT 102 NANO FIBER diluted 10-15% w/w with water depending on the nature of the substrate. In case of particularly loose substrates, prime the surface with DOMORESIN diluted with water at a ratio of 1 to 3.

Application:

2-3 layers: DOMOREFLECT 102 NANO FIBER undiluted.

Apply with a roll, brush or airless.

Each layer is applied crosswise, after the previous has been fully dried (after 2,5 hours depending on the ambient temperature).

In places with cracks apply polyester cloth tape as reinforcement. In this case, apply the primer and when it is fully dry spread one layer of DOMOREFLECT 102 NANO FIBER. Then apply the reinforcement tape along the cracks, while the material is still wet and then apply another two successive layers of DOMOREFLECT 102 NANO FIBER.

On surfaces with many and dense cracks, it is recommended to fully reinforce the surface using polyester cloth in a width of 1 m and weight of 60 gr/m².

Additional information:

- All tools and application equipment must be cleaned thoroughly and immediately after their use with plenty of water.
- The polymerization of the applied membrane is accelerated by high temperatures and slowed down by low temperatures.
- The application temperature is +5°C to 35°C. Do not apply when rain or frost is expected in the following two days.

Consumption

200-300 g/m² as primer.

1,3-1,5 kg/m² for 2 layers on primed surfaces depending on the nature of the substrate.

Storage

Can be stored for at least 12 months from production date in the original pail, in a cool environment protected from frost and direct sunlight.

Packaging

Pails of 1 kg, 5 kg & 15 kg.

Colors

White. Other colors available on request.

Volatile Organic Compounds

EU REGULATION 2004/42: According to Directive 2004/42/EU (Annex II, Table A), the maximum allowed content of VOC (Product Category i / Type WB) is 140 g/L (limits of 2010) for the final product. The final DOMOREFLECT 102 NANO FIBER contains max <140 g/L.

Specifications

Form	Liquid
Shading	White
Specific weight	1.49 ± 0.04 kg/L (23°C)
Temperature application	+5°C to +35°C

Dry to touch (23°C)
(1 mm wet film thickness on glass)
(ASTM D1640-03)

Drying times on Terraces

<u>Environmental Temperature</u>	25°C	30°C
<u>Environmental Humidity</u>	40%	30%
1 st product layer (diluted by 10%w/w)	15 min	10 min
2 nd product layer	35 min	25 min
Total time before the last layer	50 min	35 min
3 rd product layer	35 min	25 min

Final dry film thickness for 1 mm of liquid film and a consumption of 1,45 kg/m² (EN ISO 2808)

Maximum tensile stress (EN ISO 527-3) 2,7 MPa

Elongation at break (EN ISO 527-3) 210%

Elastic modulus (EN ISO 527-3) 9,2 MPa

Permeability to CO₂, s_d (EN 1062-6) >50 m

Water vapor permeability, s_d (EN ISO 7783) <5 m (Class I)

Capillary water absorption (EN 1062-3) < 0,1 kg/m²h^{0.5}

Adhesive strength (EN 1542) 1,8 N/mm²

EN 1504-2 categories Ingress Protection - Moisture Control - Increasing Resistivity

**Artificial aging of Domorelect 102 Nano Fiber according to EN 1297
(exposure to UV radiation and humidity)**

Tests	Units	EN	Results
Impact Resistance Test (UV aging and humidity) - at normal conditions - after 1000 hrs of UV aging - after 2000 hrs of UV aging	N.m	BDS EN ISO 6272-1:2011	10 10 10
Abrasion Resistance – Taber method (1000 cycles) (UV aging and humidity) - at normal conditions - after 1000 hrs of UV aging - after 2000 hrs of UV aging	mg	BDS EN ISO 5470-1:2017	0,31 0,52 0,58
Shore A Hardness (UV aging and humidity) - at normal conditions - after 1000 hrs of UV aging - after 2000 hrs of UV aging	Sh A	BDS EN ISO 868:2006	66 75 79

All the technical data stated in the present Technical Data Sheet are based on laboratory tests and the knowledge and experience of the company. Different conditions may apply at field applications that are beyond the control of the company. Therefore, the end user is ultimately responsible to make sure that the product is suitable for the application in question and to know the real conditions of the project.