

HYDROSTOP-PU



Polyurethane waterproofer for flat roofs



PROPERTIES

Brushable, elastomeric waterproofer that combines water soluble polyurethane resins modified with specific acrylic dispersions. Apply the product to create a seamless membrane without seams nor joints, that is impervious to water and provides excellent roof protection. Certified by the University of Athens (Department of Physics, Division of Applied Physics), as 'Cool' material of low thermal conductivity and high reflectivity in the visible spectrum at a rate of 93%. It reduces the energy related costs for heating and cooling and significantly improves the energy efficiency of buildings. During the summer months it reduces the interior temperatures of the spaces below the roof surface. During the winter months it presents zero water absorption and maintains the roof surface dry.

Classified as product for surface protection of concrete surfaces per EN 1504-2.

ADVANTAGES

- Does not require strengthening with reinforcing fiberglass mesh or any other material

- Easily applied using a paint roller, a painting or waterproofing (emulsion) brush, as well as an airless spray gun
- Seals minor cracks and 'prevents' them from reappearing
- Excellent resistance to frost, standing water and sunlight
- It is not affected by UV radiation (no chalking)
- Excellent resistance to the formation of mold and algae
- Resists the corrosive gases of the atmosphere, as well as chlorides, carbon dioxide and sulfur oxides
- Water vapour permeable
- Walkable, without sticking
- Does not create any bubbles
- Does not saponify
- Excellent resistance to extreme weather conditions, from -25°C up to +80°C
- Its final surface prevents mud rain and other pollutants to adhere, thus maintaining its whiteness and its reflectivity long-term.

The technical specifications and directions of use contained in this technical brochure are the results of the knowledge and experience of the company's research and development department, as well as from the real-life applications of the product. The recommendations and suggestions regarding the use of the products are made without guarantee since the respective conditions during their application are beyond the control of the company. For this reason, it is the user's responsibility to make sure that the product is suitable for the intended application as well as the application conditions of the project.

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APPLICATIONS

HYDROSTOP-PU is suitable for waterproofing roofs, terraces, parapet walls, gutters, gypsum boards and cement boards, as well as properly installed and well adhered asphaltic roofing rolls.

USE

1. Preparation of new surfaces

Using a roofing scraper or a wide chisel, remove all deteriorated sections, if any. Continue by using a hard, street type, broom. If any moss, lichen or grease stains are present, remove them by using D-95 CLEANER of DUROSTICK, or a bleach-water solution at a dilution ratio of 1:1. Scrub the surface thoroughly and rinse with plenty of clean water. Surfaces to be waterproofed must be dry and should not get wet for the next 48 hours, in order to avoid surface moisture from being trapped.

2. Preparation of surfaces coated with waterproofing product(s)

- **Detached torch-down roofing materials:** Remove them using a wide roofing scraper and roofing torch or other mechanical means.
- **Well adhered existing torch-down roofing materials,** only require to thoroughly remove all the dust from their surface and to seal any detached sections.
- **Detached or deteriorated elastomeric waterproofer,** have to be removed using a wide roofing scraper or a razor blade.
- **Detached elastomeric materials that are not visible,** can be found using a garden hose. Pour water on the roof surface from about 1 meter high and listen carefully. Notice the change of the sound the water makes when it hits the detached parts of the waterproofing and mark them. Cut the detached sections using a razor blade, a scraper or other mechanical means. Scrape the defective material off.

3. Application

Using a roller and a brush, prime the surface using the water soluble, micromolar stabilizer AQUAFIX or the SOLVENT BASED PRIMER diluted 50% with THINNER 101 of DUROSTICK. Alternatively, dilute the product by adding 30% water and prime the entire surface. Once the primer has been absorbed into the surface and is

completely dry, it is possible for some hairline cracks to become visible. Treat those cracks by applying several coats of HYDROSTOP-PU, until they are completely sealed. Each new coat is applied once the previous one is dry. Seal wider cracks ($\geq 1\text{mm}$) using the elastomeric sealant DS POLYMER or by using the polyurethane elastomeric sealant DUROFLEX-PU of DUROSTICK. Once the sealant is dry, apply 2 or 3 coats of the polyurethane waterproofer HYDROSTOP-PU over the sealed cracks.

Complete the waterproofing process by coating the entire area with 2-3 crosswise coats, to cover any minor substrate imperfections. Apply each coat 6-18 hours after the previous one was applied (depending on ambient conditions) or once the previous coat has completely cured and it is walkable.

HELPFUL TIPS - NOTES

- Mix well before use
- Waterproof all vertical surfaces around the roof (parapet walls), their entire height
- Avoid exceeding thicknesses of 0.5mm per coat
- Low ambient temperatures delay the final curing time while high ambient temperatures speed up the curing process
- Avoid applying the product in high humidity conditions or when there is possibility of rain within the next 24 hours.
- After curing, the product is harmless to health and the environment.

CLEANING

Clean all tools with water (and soap or detergent if necessary), immediately after use.

CONSUMPTION

- Minimum consumption: 0.75lt to 1.2lt/m² for 2 coats, depending on the substrate
- 1.2lt to 1.5lt/m² for 3 coats, depending on the substrate (long-lasting protection)

STORAGE

Store in places protected from frost, in factory sealed containers, for up to 18 months from production date

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SAFETY DIRECTIONS

The product needs no hazard labeling under current European and National legislation. However, it is recommended to keep away from the reach of children. If swallowed, seek immediate medical advice and show the container or label.

PACKAGING

- Carton box with 12 pcs of 750ml each one
- 3lt container (on a 120pcs pallet)
- 10lt container (on a 48pcs pallet)
- 15lt container (on a 24pcs pallet)

TECHNICAL SPECIFICATIONS (Measurement conditions 23°C and 50% R.H.)

Form - Color	Viscous paste - White
Composition	Hybrid dispersion system
Density	1.35±0.05kg/lt
Elongation at break	> 400% (ASTM D 412)
Tensile strength	> 1,5 N/mm ² (ASTM D 412)
Capillary water absorption	0.01kg/m ² .h ^{0.5} (EN 1062-3, requirement EN 1504-2: w <0,1)
Permeability s_D to CO₂, per EN 1062-6:	s _D > 50 m
Water vapour permeability s_D per EN ISO 7783	s _D = 1.73m (water vapour class I, s _D < 5m)
Adhesion to concrete per EN 1542	1.2 N/mm ² (requirement for flexible systems without circulation: 0.8 N/mm ²)
Impact resistance per EN ISO 6272-1	5Nm (class I)
Application temperature	From +5°C to +35°C
Temperature resistance	From -25°C to +80°C

Friendly to human and the environment

V.O.C. (Volatile Organic Compound):

Limit value of maximum V.O.C. content per EU (Directive 2004/42/EC) for the specific product (category A/c: 'Coatings for exterior walls of mineral substrate', Type WB): 40gr/lt (2010). The ready to use product contains maximum 10gr/lt V.O.C.



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