

DUROSTICK DS-220 Elastomeric waterproofer for roofs with 8 years warranty



SRI: 112
SR: 89%
e: 0,83

TECHNICAL SPECIFICATIONS

Form - Color	Viscous paste - White
Density	1.40±0.05 kg/lt
Elongation at break (per ASTM D 412)	After 8 days of curing and at 1mm thick membrane, the elongation at break was determined at 400%
Full tightness	7 atm per DIN 1048
Moisture resistance	At least 8 years
Application temperature	From +8°C to +30°C
Temperature resistance	From -30°C to +90°C

Friendly to human and the environment

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

Limit value of maximum V.O.C. content according to EC (Directive 2004/42/EC) for the particular product (category A1c: 'Coatings for exterior walls of mineral substrate', type WB): 40gr/lt (2010). Ready to use product contains maximum 17 gr/lt V.O.C.

CONSUMPTION & RESISTANCE OF THE ACRYLIC ELASTOMERIC WATERPROOFER DUROSTICK DS-220		
Product quantity/m ²	Coats of application	Minimum time of waterproofing
1.0-1.1 Kg*	2	8 years
1.5-2.0 kg*	3	10 years

* Depending on the substrate

CONSUMPTION

1.0-1.5kg/m² for two coats, depending on the substrate.

STORAGE

Store in places protected from frost for a minimum of 24 months after production date.

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 medical advice immediately and show the container or label.

PACKAGING

- 5kg container (on a 120 pc. pallet)
- 15kg container (on a 48 pc. pallet)
- 25kg container (on a 24 pc. pallet)

PROPERTIES

Brushable elastomeric acrylic sealant for terraces with long lasting durability (pic.1).

It creates a white protective membrane, with excellent bonding to the substrate (pic.2).

Due to its high elasticity, it can absorb intense expansions and contractions, without the need for any additional reinforcement.

It protects surfaces against moisture which attacks the concrete rebars.

Certified by the University of Athens (Department of Physics, Division of Applied Physics) as 'Cool' material of low thermal conductivity, and high reflectivity.

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

ADVANTAGES

- It offers remarkable resistance to adverse weather conditions, maintaining its properties in temperatures ranging from -30°C to +90°C.
- It is resistant to the corrosive gas-

es of the atmosphere, gases such as carbon dioxide, sulfur oxides, chlorides etc.

- It contains new age UV filters, contributing to its long lasting resistance against the destructive effects of solar radiation.
- It provides walkable surfaces that do not stick.
- It can effectively cover substrate cracks and it is not affected by the (possible) creation of new ones on the substrate itself.
- It presents excellent resistance, even to standing water.
- It reduces the temperature absorption of the roof slab up to 20%, due to its reflective action (≥80% Cool material), resulting from its exceptional whiteness (pic. 4).
- It reduces the danger of moisture concentration to the substrate, and consequently the creation of mold, because it is vapour permeable.
- Ideal waterproofing solution for surfaces with installed (or to be installed in the future) photovoltaic modules.
- It maintains its whiteness without



any calcification problems.

- It cleans easily by water only.

APPLICATIONS

DUROSTICK DS-220 is applied with ease on terraces and roofs to be covered with clay roof tiles, on roof corners and ridges, on lead lined roof valleys, balconies and built-in planters. It is recommended for substrates made from concrete, and terrazzo, as well as for wood surfaces. It is also suitable for existing asbestos based mortars, cement boards and well-adhered asphaltic based roofing material. DS-220 functions as a system with THERMOELASTIC COLOUR.

When they are both applied to the roof and the walls of a house, they help reducing the temperature of the indoor spaces of the outdoor coated surfaces up to 20% (providing the

existence of energy efficient door and window frames).

Therefore they help reduce the energy consumption for heating and cooling for up to 30%.

USE

1. New surface preparation

Using a stiff broom and water, remove any loose materials and sludge. Remove black spots using DUROSTICK D-95 CLEANER or a bleach - water solution, at a dilution ratio of 1:1.

Continue by thoroughly rinsing with plenty of water. Surfaces to be waterproofed must be dry and should not get wet for the next 24 hours, in order to avoid surface moisture from being trapped.

2. Existing surface preparation

- Detached torch-down roofing: Remove them using a wide roofing

scraper and roofing torch or other mechanical means.

- Well adhered existing torch-down roofing material, only require a first coat of DS-220, diluted 5% with water and a second coat undiluted applied crosswise.

- Detached or deteriorated elastomeric waterproofers, must be removed using a wide roofing scraper or other mechanical means.

- **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.

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, or other mechanical means, and scrape the defective

material off.

3. Application:

Using a roller, first apply the micro-molar stabilizer, AQUAFIX undiluted, or the SOLVENT BASED PRIMER, diluted 30% with THINNER 101 of DUROSTICK.

Alternatively, dilute DS-220 with water, at a ratio of 1:1 and use it as primer, assuming that the roof does not have any deteriorated sections. Once the priming product dries, locate any possible hairline cracks (0.1-0.4mm).

Individually coat each crack with one-two layers using the undiluted product, to seal them completely.

If the width of the cracks is between 0.5-1mm, it is recommended to seal them using the DUROSTICK ACRYLIC CAULK or the elastomeric sealant, DS-POLYMER of DUROSTICK, using a putty knife.

Continue by applying two coats of DS-220 over the cracks to complete their sealing treatment.

Complete the surface waterproofing by applying two coats over the entire area using undiluted DS-220 of DUROSTICK.

Apply the second coat crosswise, once the first one is completely dry and walkable.

ATTENTION

Avoid the application of the water-proofer when there is a possibility of rain within the next 24 hours.

NOTE

After drying, the product is harmless to health and the environment.



pic. 3



pic. 4

TOOLS FOR THE REMOVAL OF DETACHED ELASTOMERIC WATERPROOFING PRODUCTS



REPORT OF REFLECTIVITY MEASUREMENT, EMISSIVITY COEFFICIENT & THERMAL CONSTANTS OF THE UNIVERSITY OF ATHENS, PHYSICS DEPARTMENT

Specimen	Reflectivity in solar radiation SR(%)	Emissivity coefficient in the infrared radiation ϵ (± 0.02)	Reflectance index to solar radiation SRI
DUROSTICK DS-220	89	0.83	112

Specimen	Thermal conductivity (W/mK)	Thermal dissipation (mm^2/s)	Specific Thermal capacity ($\text{MJ}/\text{m}^2\text{K}$)
DUROSTICK DS-220	0.535	0.341	1.570