# DS-220

## Elastomeric waterproofer for flat roofs (liquid rubber)


QUALITY CONTROLLED CE EN 1504-2

EPD®

### ■ PROPERTIES

Brushable elastomeric acrylic rubber-based waterproofer for roofs with long-lasting durability.
It creates a white protective membrane, without seams nor joints, with excellent adhesion to various substrates. Due to its high modulus of elasticity, it can absorb intense expansions and contractions, without the necessity for additional reinforcement (mesh).
It protects surfaces from moisture that can adversely affect 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 per EN 1504-2.

### n ADVANTAGES

•It offers remarkable durability against adverse weather conditions, maintaining its properties in temperatures ranging from -30°C to +90°C.
•It is resistant to the corrosive gases of the atmosphere, such as carbon dioxide, sulfur oxides, chlorides, etc.
•It contains advanced new technology UV filters, contributing to its long-lasting resistance against the destructive effects of solar radiation.
•It provides walkable surfaces that do not stick (after complete cure).
•Presents excellent bridging of existing hairline and capillary cracks and prevents their reappearance.
•Exceptional durability to standing water.
•It improves the energy efficiency of the building. It reduces the temperature absorption of the roof slab due to its reflective action (≥80%) resulting from its exceptional whiteness.
•It reduces the indoor temperature of spaces under the roof during the summer and keeps it watertight during the winter months. As a result, it also contributes to the reduction of energy consumption for cooling and heating.
•It minimizes the risk of moisture build-up on the substrate and mold growth in the interior, as it is water vapor permeable.

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•Ideal waterproofing solution for surfaces on which photovoltaic modules have been, or will be, installed.
•It maintains its whiteness and does not chalk.
•It cleans easily and simply using only water.

**n 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 of concrete and terrazzo, as well as for wood surfaces. It is also suitable for existing asbestos-based mortars, cement boards and well-adhered asphal roofing rolls.

### ■ USE

**1. Preparation of cementitious, unprotected surface:**
Using a stiff broom and water, thoroughly clean all dust and mud. Remove all black spots (mold/mildew) using DUROSTICK's D-95 CLEANER or a bleach/water solution, at a mixing ratio of 1:1. Follow by rinsing thoroughly with plenty of water. All surfaces to be sealed have to be thoroughly dry and to be protected from water for at least 24 hours prior to the application, thus preventing any penetration and trapping of moisture.

**2. Preparation of surfaces coated with waterproofing product(s):**
Detached torch-down roofing: remove it using a wide roofing scraper and a roofing torch simultaneously.
**Well-adhered existing torch-down roofing material,** only require a first coat of DS-220, diluted 5% with clean water and a second, or even a third, crosswise coat(s) undiluted to complete the waterproofing of the roof.
**Worn-out or detached elastomeric sealants**, remove them using a roofing scraper or other mechanical means.

**3. Application**
Before applying the waterproofing product, first apply the micromolar stabilizer, AQUAFIX undiluted, or the SOLVENT-BASED PRIMER, diluted 30% with THINNER 101 of DUROSTICK, by using a paint roller.
Alternatively, dilute DS-220 with water, at a ratio of 1:1 and use it as a primer with a paint roller. Once the priming product dries, locate any possible hairline cracks (0.1-0.4mm width). Seal them completely by individually coating each crack with one-two layers of the undiluted product. If the width of the cracks is between 0.5-1mm, it is recommended to seal them using the DUROSTICK's ACRYLIC CAULK or the elastomeric sealant, DS POLYMER of DUROSTICK (cartridge), using a putty knife. Continue by applying two coats of the undiluted product over the cracks to complete their sealing.
Complete the surface waterproofing by applying two undiluted coats (or even three, depending on the substrate, for long-term durability) over the entire area using DUROSTICK's DS-220. Apply each additional coat crosswise, once the previous is completely dry and walkable – approximately after 24 hours, depending on ambient conditions (temperature, moisture).

### ■ USEFUL TIPS - NOTES

•Mix well before use.
•Avoid the application of the waterproofer when there is a possibility of rain within the next 24 hours.

### ■ CLEANING

Clean all tools with water and soap or detergent, if needed, immediately after use.

### ■ CONSUMPTION

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

### ■ STORAGE

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

### ■ SAFETY DIRECTIONS

The product does not require any hazard labeling under applicable European and national legislation. However, it is recommended to keep away from children.
If swallowed, seek medical advice immediately by showing the container or label.

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### PACKAGING

Container 5kg (in a pallet of 100 containers)
Container 12kg (in a pallet of 48 containers)
Container 15kg (in a pallet of 48 containers)
Container 25kg (in a pallet of 24 containers)

| TECHNICAL SPECIFICATIONS | |
|---|---|
| **Form - Color** | Viscous paste-White |
| **Density** | 1.40±0.05kg/lt |
| **Elongation (per ASTM D 412)** | After 8 days of curing and at 1mm thick membrane, the elongation at break was determined at 400% |
| **Full watertightness** | 7 Atm per DIN 1048 |
| **Capillary absorption and permeability to water** | 0.01kg/m$^2$·h$^{0,5}$ (EN 1062-3, requirement EN 1504-2: w <0,1) |
| **Permeability $S_D$ to $CO_2$, per EN 1062-6** | $S_D$ > 50m |
| **Water vapour permeability $S_D$ per EN ISO 7783** | $S_D$ = 1.17m (water vapour **class I**, $S_D$ <5m) |
| **Adhesion strength per EN 1542** | 1.2 N/mm² (requirement for flexible systems with no traffic: 0.8 N/mm²) |
| **Impact resistance per EN ISO 6272-1** | 10 Nm (**class II**) |
| **Application temperature** | From + 8°C up to +30°C |
| **Temperature resistance** | From -30°C to +90°C |

**V.O.C. (Volatile Organic Compounds):**
Limit value of maximum V.O.C. content according to EU (Directive 2004/42/CE) for the particular product (category A/c: 'Coatings for exterior walls of mineral substrate', Type WB): 40gr/lt (2010). The ready to use product contains maximum 17gr/lt V.O.C.

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