

DUROSTICK D-1 Brushable waterproofing mortar for walls, floors, basements and roofs



TECHNICAL SPECIFICATIONS (Measurement conditions 20 °C and 50% R.H.)

| | |
|-------------------------------|---|
| Form - Color | Cementitious mortar - White, Gray |
| Toxic | No |
| Bulk density of dry mortar | 1.10 ± 0.05 kg/lt |
| Bulk density of fresh mortar | 1.60 ± 0.05 kg/lt |
| Maximum grain size | 0.60 mm |
| Water requirement | 6.0 lt water per 25kg powder |
| Application temperature | From +5 °C to +35 °C |
| Temperature resistance | From -30 °C to +90 °C |
| Pot life | 1 hour |
| Application thickness | 1 mm/coat |
| Foot traffic | After 3 hours |
| Backfilling | After 3 days |
| Water tightness per DIN 1048* | Under water pressure of up to 7 atm (kg/cm ²) |

MECHANICAL STRENGTHS

| | |
|---|--|
| Strength for 28 days, per EN 196-1, in: | |
| • flexion | 7.50 ± 1.00 N/mm ² |
| • compression | 25.00 ± 1.00 N/mm ² |
| Shrinkage per ASTM C596 | Negligible |
| Permeability S _D to CO ₂ , per EN 1062-6 (method A) | S _D = 178 m |
| Water vapour permeability S _D , per EN ISO 7783-2: | S _D = 0.13 m [class I, (water vapour permeable)] |
| Capillary water absorption w, per EN 1062-3 : | w < 0.090 kg/m ² .h ^{0.5} |
| Adhesion to concrete, per EN 1542: | > 2.50 N/mm ² |

*Laboratory testing by the Ministry of Environment & Buildings 516868/872 KEDE 530/58899

CONSUMPTION

1.0-1.3kg/m²/mm thick coat.

| LOAD | MINIMUM CONSUMPTION | MINIMUM TOTAL THICKNESS |
|------------------------------|------------------------------------|-------------------------|
| Moisture | 2.0kg/m ² (2 coats) | Approximately 1.5mm |
| Water exerting min. pressure | 3.0kg/m ² (3 coats) | Approximately 2.0mm |
| Water exerting max. pressure | 3.5-4.0kg/m ² (4 coats) | Approximately 2.5mm |

SAFETY DIRECTIONS

The product contains Portland cement. Before use, refer to the cautions on the product's package or the Material Safety Data Sheet.

PACKAGING

Carton box with 4 bags of 5kg each one
Paper bag of 25kg on a 1,500kg pallet.

PROPERTIES

Brushable cementitious waterproofing mortar with excellent adhesion. It fully waterproofs surfaces due to its polymer and water repelling ingredients. DUROSTICK D-1 is suitable for positive (preventive exterior application) and negative (interior application for repair purposes) hydrostatic pressure applications. It is resistant to frost. It is water vapour permeable (breathable). Classified as product for surface protection of concrete surfaces (c) per EN 1504-2.

APPLICATIONS

Apply the product on well soaked surfaces made of concrete elements, walls and floors. It waterproofs surfaces made of brick, concrete blocks and cement screeds as well as plaster and aircrete etc.

Ideal for the exterior waterproofing of basements and walls, prior to backfilling. Sealed surface with D-1 have to be protected by a drainage membrane (dimpled membrane) (pic.2).

D-1 is ideal even for 'post backfilling' waterproofing of vertical or horizontal interior surfaces. It is necessary to remove the plaster throughout the area with moisture before the waterproofing. Excellent for waterproofing underground floors and ground level floors, protecting from rising damp.

It fully waterproofs water tanks, swimming and athletic pools (pic.1,3,4), bathrooms and showers, as well as flower planters, air shafts and tunnels. Walls made of brick or concrete blocks must be waterproofed before applying the scratch coat of plaster.

The product is also recommended for pitched concrete roofs before lining with clay roofing tiles (pic.6), north facing walls and generally any mineral surface exposed to circumstantial or continuous moisture.

USE

1. Surface preparation

Remove all wood wedges, polystyrene and sharp protrusions.

Cut the snap ties and tie rods 2-3cm deep, and coat them using DUROSTICK RUST FREE POWDER (corrosion inhibitor).

Seal the newly formed holes using D-55, DUROFIX or SUPER FAST of DUROSTICK.

Continue by thoroughly cleaning all surfaces from loose materials, formwork oils and salts using the biodegradable oil detergent BIOCLEAR INDUSTRIAL. Rinse thoroughly with water.

2. Application

DUROSTICK D-1 applies to meticulously soaked surfaces in 2-4 equal thickness crosswise coats of 1mm thick each one. Use an emulsion or a round chalk brush or a roller for emulsion paints, or even metal trowels. Empty the product in a clean container with cool water, at a mixing ratio of 25kg powder to 6.0-6.5lt water (5kg D-1 to 1.2-1.3lt water).

Mix using a low rpm electric mixer equipped with the appropriate attachment (recommended), until a lump free, homogeneous mass is created. The mixture has to be thick enough so it does not drip from an emulsion brush or roller.

The mixture remains workable for 60 minutes. Apply each additional coat approximately after 2 hours of the previous one, and while the previous one is still fresh. In case the product remains on the surface longer than 2 hours, re-soak the surface. Protect the finish surface for the next 48 hours from high temperatures by frequently soaking it. Protect the surface from frost using polystyrene slabs.

NOTES

- If the substrates to be coated with DUROSTICK D-1 have hairline cracks or there is a need to protect them from natural or other types of vibrations (digging equipment working in adjacent locations), use an acrylic additive. Add the acrylic emulsion D-20 of DUROSTICK in the mixing water at a ratio of one part water to one part D-20, up to two parts water to every one part D-20. Alternatively, use 5 parts water to one part DUROMAX to ultimately increase the flexibility of the product, the surface resistance to abrasions, its adhesion and waterproofing as well.
- D-1 should not be mixed with more water than specified.
- After drying, the product is harmless to health.

STORAGE

- **25kg paper bag with valve:** 12 months after production date.
 - **5kg plastic bag:** 18 months after production date.
- Store in factory sealed packages, in dry and shaded places.

CLEANING

Clean all tools with water, immediately after use.

Waterproofing applications using D-1

