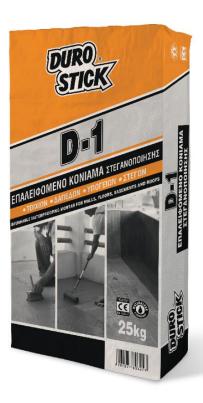
# **D-1**



Brushable waterproofing mortar for walls, floors, basements and roofs



#### **PROPERTIES**

Brushable cementitious waterproofing mortar with excellent adhesion. It fully waterproofs surfaces due to its polymer and water repelling ingredients. D-1 of DUROSTICK 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 (principle 2.5/MC, PR/ moisture control, physical resistance).

### **APPLICATIONS**

Apply on well soaked (carefully dampened) 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 surfaces with D-1 have to be protected by a drainage membrane (dimpled membrane). D-1 is ideal even for 'post backfilling' waterproofing of vertical or horizontal interior

surfaces. It is necessary to remove the plaster with moisture, throughout the area, before the waterproofing. Excellent for waterproofing underground floors and ground level floors, protecting them from rising damp. It fully waterproofs water tanks, swimming and athletic pools, 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, north facing walls and generally any mineral surface exposed to partial 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 RUST FREE POWDER (corrosion inhibitor). Seal the newly formed holes using D-55, DUROFIX, D-11 SUPER FAST or DS-247 of DUROSTICK. Continue by thoroughly cleaning all surfaces from loose materials, formwork oils and salts using the biodegradable cleaner BIOCLEAN INDUSTRIAL.

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Rinse thoroughly with plenty of 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. Mix using a low-rpm drill equipped with the appropriate attachment (recommended), until a lump free, homogeneous mass is obtained.

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 2 hours after of the previous one, and while the previous one is still fresh. In case the product remains on the surface longer than 2 hours, resoak the surface. Protect the finish surface for the next 48 hours, after its application completion, from high temperatures by frequently soaking (dampening) it. Protect the surface from frost using polystyrene slabs.

#### **NOTES**

- If the substrates to be coated with DU-ROSTICK 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 DU-ROSTICK 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 DU-ROMAX 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 hardening, the product is harmless to health and the environment.

#### **CLEANING**

Clean all tools with water, immediately after use.

#### **CONSUMPTION**

1.0-1.3kg/m<sup>2</sup>/mm thick coat

LOAD	MINIMUM CONSUMPTION	MINIMUM TOTAL THICKNESS
Moisture	2.0kg/m² (2 coats)	Approximately 1.5mm
Water exert- ing min. pressure	3.0kg/m² (3 coats)	Approximately 2.0mm
Water exerting max. pressure	3.5-4.0kg/m² (4 coats)	Approximately 2.5mm

#### **STORAGE**

- Paper bag 25kg: At least 12 months from the date of production.
- Plastic packaging 5kg: At least 18 months from the date of production.

It is kept in its factory sealed packaging, in dry and shady places.

#### **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

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TECHNICAL SPECIFICA ditions 20°C and 50% R.F	TIONS (Measurement con-	
Form - Color	Cementitious mortar - Gray, White	
Toxic	No	
Bulk density of dry mortar	1.10±0.,05kg/lt	
Bulk density of fresh mortar	1.60±0.05kg/lt	
Maximum grain size	0.6mm	
Water requirement	6.0lt of water in 25kg mortar	
Application temperature	From +5°C to +35°C	
Temperature resistance	From -30°C to +90°C	
Pot life	1 Hour	
Application thickness	1mm/coat	
Foot traffic	After 3 hours	
Backfilling	After 3 days	
Water tightness per DIN 1048	Under water pressure of up to 7 Atm (kg/cm²)	
PRODUCT PERFORMANCES		
Strength for 28 days, per EN 196-1, in:		
• flexion	$7.50 \pm 1.00 \text{N/mm}^2$	
<ul> <li>compression</li> </ul>	25.00 ± 1.00N/mm <sup>2</sup>	
Shrinkage per ASTM C596	Zero	
Permeability s <sub>D</sub> to CO <sub>2</sub> , per EN 1062-6	S <sub>D</sub> = 178m	
Water vapour permeability S <sub>D</sub> , per EN ISO 7783-2	$S_D \le 2m$ [class I, (water vapour permeable)]	
Capillary water absorption w, per EN 1062-3	$w \le 0.06 \text{kg/m}^2 \cdot \text{h}^{0.5}$	
Adhesion to concrete, per EN 1542	≥ 1.80 N/mm²	
Impact resistance, per EN ISO 6272-1	50Nm (class III)	
Reaction to fire, after application, per EN 13501-1	Euroclass A1	

<sup>\*</sup>Laboratory testing by the Ministry of Environment & Buildngs 516868/872 KEDE 530/58899



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12

DoP No.: 029 EN 1504 - 2

### **DUROSTICK D-1**

Surface protection product - Coating Moisture Control - Surface Improvement

Permeability to  $\mathrm{CO_2}$ :  $\mathrm{S_D} > 50\mathrm{m}$  Water vapour permeability Class I (permeable) Capillary absorption:  $\mathrm{w} < 0.1~\mathrm{kg/m^2 \cdot h^{0.5}}$  Adhesion (pull of test):  $\geq 1.0~\mathrm{N/mm^2}$  Impact resistance: Class III ( $\geq 20\mathrm{Nm}$ ) Reaction to fire: Euroclass A1 Dangerous substances comply with 5.3

## **DUROSTICK S.A.**

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