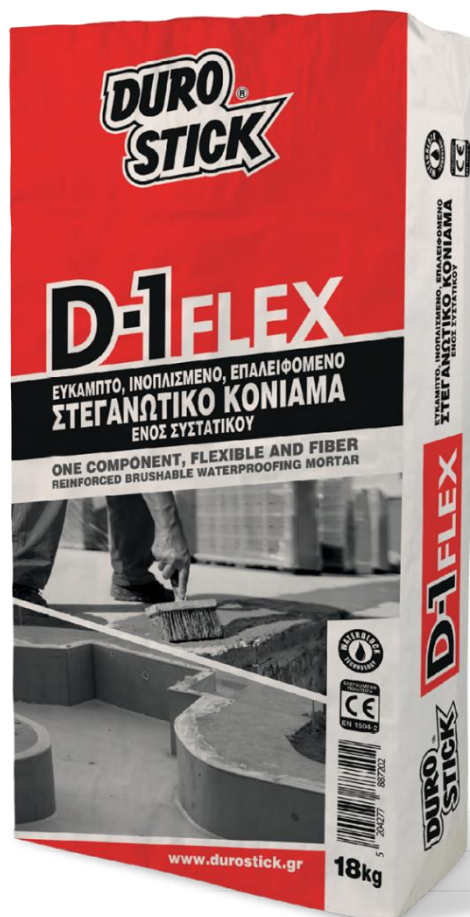


# D-1 FLEX



**One-component, flexible and fiber-reinforced brushable waterproofing mortar**



## ■ PROPERTIES

Flexible and fiber-reinforced, quartz based cementitious waterproofing mortar. Modified with acrylic, water repellent polymers and special additives. Ideal for any horizontal or vertical mineral surface, subjected to vibrations or expansions and contractions that already have or expected to develop capillary/hairline cracks.

Classified as product for surface protection of concrete surfaces (c) per EN 1504-2 principle 1 (Ingress protection), principle 2 (Moisture control), principle 5 (Physical resistance), principle 8 (Increasing resistivity).

## ■ ADVANTAGES

- Mix only with water
- Long-term waterproofing, even under pressures of up to 7 Atm per DIN 1048
- Easy application
- Powerful adhesion to various sound substrates
- Protects concrete from carbonation-durability against ageing
- Covers capillary/hairline cracks up to 2mm in 2 coats, by encasing in the first coat the self-adhering fiberglass tape DS-230 of DUROSTICK
- Appropriate and compatible with the application of ceramic tiles, cementitious microcement, microcement in paste form, epoxy based paints and primers, rocks and quartz stones (stone carpets),

The technical specifications and directions of use contained in this technical data sheet 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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such as the quartz aggregates QUARTZ DECO of DUROSTICK.

### ■ APPLICATIONS

D-1 FLEX is applied to waterproof surfaces made of concrete, plaster, bricks, cement blocks, cement boards, aircrete etc. It ensures the waterproofing of fountains, swimming pools, inverted roofing systems, bathrooms, showers to be lined with tiles or microcement and generally any mineral surface exposed to partial or continuous moisture. Suitable for waterproofing foundations and basements, for positive (exterior application/preventive measure) and negative (interior application/therapeutic solution) hydrostatic pressures.

### ■ USE

#### 1. Surface preparation

Remove formwork wood ties, polystyrene and all sharp protrusions. Cut the tie rods to a depth of 2-3cm, coat them with RUST FREE POWDER of DUROSTICK and seal the holes with DUROSTICK D-55, D-11 SUPER FAST or DS-247. Then, clean the surfaces from loose materials and make sure to remove all formwork oils and salts using the biodegradable cleaner BIOCLEAR INDUSTRIAL. Rinse with plenty of water. If there is a preexisting water leak or seepage (negative pressures), use the quick setting cement DUROFAST of DUROSTICK and seal before any other application.

#### 2. Application

DUROSTICK D-1 FLEX applies to meticulously soaked surfaces, in 2-3 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 trowel. Empty the product in a clean container with cool water, at a mixing ratio of 18kg mortar to 4.5lt water (4kg mortar to 1lt water) for trowel application or 5.4lt water (or 1.2lt) for chalk brush or roller applications. Mix using a low-rpm drill equipped with the appropriate attachment (recommended), until a lump-free, homogeneous mass is created. The mixture has to be thick enough, to be suitable for each application method. The

mixture remains workable for 60 minutes. Apply each additional coat approximately 2 hours after the previous one and while the previous one is still fresh. In case the product remains on the surface longer and dries, resoak the surface. Protect the product for the next 24-48 hours, after its application completion, from high temperatures, rain and frost.

### ■ NOTES

- D-1 FLEX should not be mixed with more water than specified.
- It is prohibited to add cement, plaster or lime as well as any type of improving additive.
- It is highly recommended to install ceramic tiles using flexible/deformable adhesives, such as GOLD, EXTRA POWER, ELASTIC or DUROFAST FLEX of DUROSTICK.
- Waterproof cracked roof coving between horizontal and vertical surfaces by just applying two consecutive coats of D-1 FLEX.
- Avoid applying the product when the surface is directly exposed to sunlight or strong winds.
- Do not allow for D-1 FLEX to be directly exposed (to the elements) without top coating when applied in swimming pools and fountains.

### ■ CLEANING

Clean all tools with water, immediately after use.

### ■ CONSUMPTION

1.0kg/m<sup>2</sup>/mm thick coat.

### ■ STORAGE

Store in factory sealed packages, in dry and shaded places, for 12 months from production date.

### ■ SAFETY DIRECTIONS

The product contains Portland cement. Before use, refer to the cautions on the product packaging or the Safety Data Sheet.

### ■ PACKAGING

Carton box with 5 bags of 4kg each one  
Paper bag of 18kg on a 1,080kg pallet.

# D-1 FLEX



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brushable waterproofing mortar**

<b>TECHNICAL SPECIFICATIONS</b> (Measurement conditions 20°C and 50% R.H)	
■ Form - Color	Cementitious mortar - Gray, White
■ Bulk density of dry mortar	1.08±0.05kg/lt
■ Bulk density of fresh mortar	1.60±0.05kg/lt
■ Maximum grain size	0.5mm
■ Water requirement	4.5lt to 5.4lt of water in 18kg mortar, depending on the application method
■ Application temperature	From +5°C to +35°C
■ Temperature resistance	Form -35°C to +90°C
■ Pot life	60 minutes
■ Application thickness	1mm/coat
■ Foot traffic	After 3 hours
■ Backfilling	After 3 days
■ Tile installation or microcemento application	After 2 days
■ Water tightness per DIN 1048	Under water pressure of up to 7 Atm (kg/cm <sup>2</sup> ), 7 days after the application

<b>PRODUCT PERFORMANCES</b>	
■ Abrasion resistance per EN ISO 2409	weight loss < 3000 mg
■ Permeability S <sub>D</sub> to CO <sub>2</sub> per EN 1062-6 (method A)	S <sub>D</sub> > 50m
■ Permeability S <sub>D</sub> to water vapour per EN ISO 7783-2	S <sub>D</sub> ≤ 0.60m (class I, water vapour permeable)
■ Capillary absorption and permeability to water w per EN 1062-3	w ≤ 0.02kg/m <sup>2</sup> ·h <sup>0.5</sup>
■ Adhesion strenght per EN 1542	≥ 1.90 N/mm <sup>2</sup>
■ Impact resistance per EN ISO 6272-1	75Nm (class III)
■ Reaction to fire	Class A1

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