

## 5.3.2 Products for repairs

# DUROSTICK DS-247 Rapid set repair mortar with corrosion inhibitor



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

Form - Color	Cementitious mortar - Gray
Bulk density of dry mortar	1.15 ± 0.10 kg/lit
Bulk density of fresh mortar	1.70 ± 0.10 kg/lit
Maximum grain size	0.6mm
Application temperature	From +5 °C to +35 °C
Temperature resistance	From -30 °C to +80 °C
Water requirement	210ml water in 1kg mortar 1.05lt water in 5kg mortar
Pot life	1 hours
Maximum application thickness per coat	4cm
Maximum application thickness per coat	1mm
Chlorides content per EN 1015-17	<0.05%

### MECHANICAL STRENGTHS

Flexural strength, per EN 12190 after:	
• 28 days	≥ 8,00 N/mm <sup>2</sup>
Compressive strength, per EN 12190 after:	
• 8 hours	≥ 4,00 N/mm <sup>2</sup>
• 24 hours	≥ 10,00 N/mm <sup>2</sup>
• 7 days	≥ 30,00 N/mm <sup>2</sup>
• 28 days	≥ 50,00 N/mm <sup>2</sup>
Adhesion to concrete, per EN 1542	≥ 2,00 N/mm <sup>2</sup>
Modulus of elasticity, per EN 13412	≥ 22 GPa
Resistance to carbonation	Yes
Adhesion after 50 freeze-thaw cycles, per EN 13687-1	> 2.00 N/mm <sup>2</sup>
Capillary water absorption	≤ 0.30kg/m <sup>2</sup> h <sup>0.5</sup>
Reaction to fire per EN 13501-1	Euroclass A1

### STORAGE

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

### SAFETY DIRECTIONS

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

### PACKAGING

Carton box with 15 pcs of 1kg each one  
Carton box with 4 of 5kg each one

### PROPERTIES

Multi purpose fiber-reinforced and resin fortified sealing mortar. Its formula contains corrosion inhibitor that protects against concrete rebar oxidation. It presents powerful adhesion, frost resistance, low moisture absorption and 50% greater strength than concrete. Classified PCC R4 as concrete repair product, per EN 1504-3.

### ADVANTAGES

- Rapid strength development (within the first 24 hours)
- Exceptional workability and finish surface
- Minimal shrinkage
- Does not contain chlorides that cause damage
- Highly thixotropic
- Does not sag when applied to thicknesses of up to 4cm
- Sulfur resistant
- Does not require any kind of improving additives
- High mechanical strengths
- Minimum wait between successive layers
- Ideal for all applications where work speed is required or the quick turnover of a building project is necessary
- Suitable for low temperature repairs (above +5 °C).

### APPLICATIONS

DS-247 of DUROSTICK is ideal for highly demanding repairs of concrete elements and structures in rapid time (columns, (pic. 1) beams, slabs, balcony edges and fascias, pools, storage tanks, walls etc). It seals gaps and honeycombs in

concrete, as well as any construction defects on edges and corners. It restores damage and seals cracks on industrial floor (pic. 2) surfaces indoors, but also loading ramps. In most applications, it replaces epoxy repair putties.

### USE

#### 1. Surface preparation

The substrates must be free of any oils, loose materials; they have to be sound and soaked, without any standing water. **Concrete walls:** Remove any formwork wood ties, polystyrene and pointy protrusions. Cut the tie rods 2-3cm deep and seal the holes using DS-247 of DUROSTICK.

**2. Application:** Empty DS-247 in a clean container with cool water, at a ratio of 1kg mortar to 210ml of water (1.05-1.10lt to 5kg). Mix using a low rpm electric mixer with the proper mixing attachment, or a metallic trowel until a lump free, homogeneous mixture is created. Apply the mortar by 'pressing' it with a gauging trowel or a metallic spatula (pic. 1,2). The finish surface can be smoothed further by using a wet plaster float, a metallic trowel or #60 sandpaper, always depending on the application and desired finish.

### CLEANING

Clean all tools and equipments with water, immediately after use. The cured product can only be removed with mechanical means.

### CONSUMPTION

Approximately 16kg/m<sup>2</sup>/cm thick coat or 1.6kg DS-247 for filling 1lt of volume.



pic. 1



pic. 2