# DS-245 POWER MORTAR RAPID



Thixotropic and fiber-reinforced rapid set repair mortar for thicknesses of up to 4cm/coat



## **PROPERTIES**

High strength fiber-reinforced repair mortar of controlled shrinkage. The product is fortified with stainless microspheres and selected aggregates. Suitable for rapid set concrete repairs that require high strength. 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
   Does not contain chlorides that cause corrosion
   Highly thixotropic
- Sulfur resistant
- High mechanical strengths
- Minimum application waiting between overlapping coats.
- Ideal for all applications where work speed is required or fast delivery of a project is necessary
- Suitable for low temperature repairs (above +5°C).

## **APPLICATIONS**

DS-245 POWER MORTAR RAPID is ideal for quick repairs of deteriorated balcony fascias and roof repairs. It restores any construction defect after concrete pouring, such as honeycombs, rod holes, etc. Effective for any repair of horizontal or vertical concrete surfaces that has been damaged by abrasion, impact or carbonation.

#### USF

# 1. Surface preparation

The substrates must be free of any oils, loose materials; dust, they have to be sound and soaked, without any standing water.

# 2. Application

Empty DS-245 in a clean container with cool water, at a ratio of 25kg mortar to 4.25-4.50lt of water (0.85-0.90lt for 5kg). Mix using a low-rpm drill with the proper mixing attachment, until a lump free, homogeneous mixture is created. Apply the mortar by either 'pressing' it with a gauging trowel or by using an injection machine, in thicknesses of up to 4cm thick per coat. Where nec-

The technical specifications and directions of use contained in this technical brochure 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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essary, a second coat is applied before the previous one has fully cured, within 2-3 hours at 20°C. In any other case, the previous coat must be roughened by mechanical means (chisel, chipping gun etc.).

#### **NOTES**

- When the steel reinforcement (rebar) is corroded, remove all the rust with RUST REMOVER of DUROSTICK and apply DUROSTICK RUST FREE POWDER the cementitious corrosion inhibitor for rebar protection
- Adding DUROSTICK D-20 in the mixing water at a ratio of 1: 3 or DUROMAX at a ratio of 1: 6, increases its flexibility and watertightness, but also changes its setting time
- Its pot life is significantly reduced at temperatures higher than 28°C
- Do not add any water if the mixture has started to cure
- Protect the final surface with wet burlap or occasional soaking for the next 48 hours (especially in the summer months)
- After its full cure, the product is harmless to health and the environment.

#### **CLEANING**

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

# **CONSUMPTION**

Approximately 18kg/m²/cm thick coat.

## **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 4 bags of 5kg each one on a 720kg pallet.

Paper bag of 25kg on a 1,200kg pallet.

| TECHNICAL OPERIFICATIONS (A)  |  |
|---|--|
| TECHNICAL SPECIFICATIONS (Measurement   |  |
| conditions 20°C and 50%   |  |
| Form - Color  | Cementitious mortar,                     |
| Toxic   | Gray<br>No                               |
| Bulk density of dry   |  |
| mortar  | 1.50±0.10kg/lt                           |
| Bulk density of fresh   | 2.20±0.10kg/lt                           |
| mortar  | 2.2010. Toky/It                          |
| Maximum grain size  | 1.8mm                                    |
| Application   | From +5°C to +35°C                       |
| temperature   | 1101111101111101010101010101010101010101 |
| Temperature   | From -20°C to +80°C                      |
| resistance  | 1.10111 20 0 10 700 0                    |
| Water requirement   | 4.25lt water in 25kg                     |
| 1.00  | mortar                                   |
| Pot life  | Approximately 1 hour                     |
| Maximum application   | 4cm                                      |
| thickness per coat  |  |
| Minimum application   | 5mm                                      |
| thickness per coat  |  |
| Chlorides content,  | < 0.008%                                 |
| per EN 1015-17  |  |
| PRODUCT PERFORMANCES  |  |
| Flexural strength, per E  |  |
| • 28 days   | ≥ 9.00 N/mm2                             |
| Compressive strength,   |  |
| • 8 hours   | ≥ 8.0 N/mm2                              |
| • 24 hours  | ≥ 25.0 N/mm2                             |
| • 7 days  | ≥ 40.0 N/mm2                             |
| • 28 days   | ≥ 50.0 N/mm2                             |
| Adhesion to con-  | ≥ 2.20 N/mm2                             |
| crete, per EN 1542  |  |
| Modulus of elasticity,  | ≥ 22 Gpa                                 |
| per EN 13412  | V.                                       |
| Resistance to   | Yes                                      |
| carbonation   |  |
| Thermal compatibility expressed as adhesion to concrete, per EN 13687, after: |  |
|   | ≥ 2.00 N/mm2                             |
| •50 freeze-thaw cy-   | = 2.00 N/IIIIII2                         |
| •30 storm cycles  |  |
| •30 dry heat cycles   |  |
| Capillary water ab-   | w < 0.25kg/m2.h 0,5                      |
| sorption w, per EN  |  |
| 13057   |  |
| Reaction to fire, per   | Euroclass A1                             |
| EN 13501-1  |  |
| i.  |  |

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Where 1N/mm2=1MPa



# DUROSTICK S.A.

ASPROPYRGOS ATHENS PC:193 00

**GREECE 18** 

# EN 1504-3 DUROSTICK DS-245 POWER MORTAR RAPID

DoP No.: 133

Concrete repair product for structural repair CC mortar (based on hydraulic cement, polymer modified)

> Compressive strength: class R4 Chloride ion content: ≤ 0.05%

Adhesive Bond: ≥ 2.0 MPa

Thermal compatibility part 1: ≥ 2.00 MPa
Carbonation resistance: Passes
Elastic modulus: ≥20 GPa
Capillary absorption: ≤ 0.5 kg·m²-h²-s
Dangerous substances: comply with 5.4
Reaction to fire: Eurociass A1

## **DUROSTICK S.A.**

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