Shield Key Coat E

Pre-mixed, Cement-based Key Coat Plaster and Scratch Coat

TECHNICAL DATA SHEET

Description

Shield Key Coat E is a cement-based scratch coat, designed to provide a mechanical key for surfaces prior to the application of cement- and gypsum-based plasters and renders. **Shield Key Coat E** is supplied ready to use as a pre-bagged dry powder requires only the addition of clean mixing water on site.

Uses

- Indoor and outdoor applications.
- Vertical, horizontal and overhead areas.
- Prior to plastering/rendering to provide prepared surfaces of:
  - Fair-faced concrete.
  - Precast panels
  - Masonry walls

Characteristics / Advantages

- Factory-controlled, pre-blended dry mix which only requires the addition of clean water on site.
- Economical grade.
- Can be used in humid and dry conditions.
- Easy to mix and apply.
- Ease of application manually or using a sprayer machine.
- High adhesion strength and good workability.
- Low VOC
- Non-flammable and Chloride free.

Standard Compliance

EN 998-1, CSIV – W2

ASTM C926

Packaging

Shield Key Coat E is supplied in 25 kg bags.

Safety Instructions

Shield Key Coat E contains hydraulic cement and may cause irritation to the skin or eyes. Refer to the most recent Material Safety Data Sheet for information and advice on the safe handling, storage, and disposal of the product.

Typical Properties

Appearance/ Color	Grey granular powder
Maximum Aggregate Size	2 mm
Bulk Density	1.45 ± 0.10 g/ml
Fresh Wet Density (@ 23°C)	1.75 ± 0.10 g/ml
Working Time (@ 23°C)	45 – 60 minutes
Yield / 25 kg bag	~ 17 Liters
Application Thickness	2 – 3 mm
Setting Time	6 – 8 hours
Compressive Strength (BS EN 1015-11) @28 days	≥ 30.0 MPa
Flexural Strength (BS EN 1015-11) @28 days	≥ 5 MPa
Bond Strength (BS EN 1015-12) @28 days	≥ 0.85 MPa
Capillary Water Absorption (BS EN 1015-18) @28 days	< 0.15 Kg/ $m^2.min^{0.5}$

Shelf Life and Storage

Shield Key Coat E has a shelf life of 12 months when stored in its original unopened packaging in cool and dry conditions, protected from direct sunlight, heat, and moisture. Shelf life may be reduced if the recommended storage conditions are not followed.

Application Instructions

1. Surface Preparation

The substrate must be free from dust, loose materials, surface contamination, and any materials that may reduce bond or prevent adhesion. Thoroughly dampen the surface of the concrete with clean water to provide a saturated surface dry condition (SSD). Poor-quality concrete may require soaking for a significant length of time. Any excess water shall be removed prior to application. The substrate and application Temperature is from +5°C to +35°C

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2. Mixing

Shield Key Coat E requires 4.5 – 5.0 liters of potable water per 25 kg bag (or 10 liters per 50 kg bag), depending on the desired consistency.

For optimum results, mixing should be performed using a forced-action high-shear mixing paddle powered by a heavy-duty electric mixing drill. Add the pre-measured amount of water to a clean mixing bucket. Add the **Shield Key Coat E** powder slowly to the water whilst mixing and continue mixing for 2 – 3 minutes until a smooth, homogenous, lump-free consistency is achieved. Allow this mixture to stand for 1 – 2 minutes and then re-mix for another 1 – 2 minutes prior to use. Do not add additional water to the mix.

3. Application

Apply the mixed **Shield Key Coat E** to the prepared surface using a suitable spraying machine, Tyrolean box, or manually by suitable plastering trowel in a single coat at a thickness of 2 – 3 mm to achieve the desired rough texture. Ensure that the applied material covers at least 95% of the surface area to be subsequently plastered or rendered. Allow the applied to remain undisturbed for at least 48 hours.

4. Cleaning

All mixing equipment and application tools should be cleaned immediately with clean water. Hardened material should be mechanically removed.

5. Curing

The applied material of **Shield Key Coat E** requires a minimum of 48 hours of curing with potable water, at a rate of 3 – 4 times a day.

Consumption and Coverage (For 25 kg packs)

Yield: 17 Liters

Consumption: 2.8 – 3.0 kg/m^2/2 mm thickness.

Coverage: 5.5 – 6.0 m^2/25 kg bag/2 mm thickness

Limitations

- Do not apply the product if the ambient temperature is less than 5°C.
- Hot weather practices should be adopted during application and curing if the temperature is above 35°C. In hot conditions, store the material in a cool environment prior to mixing and use chilled mixing water.

Technical Support

Refer to technical information, method statement, or contact the technical support team for any inquiry.

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