Shield Key Coat

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

TECHNICAL DATA SHEET

Description

Shield Key Coat 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** 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.
- 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.
- Chloride free.

Shelf Life and Storage

Shield Key Coat 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.

Typical Properties

Appearance/ Color	Grey powder
Maximum Aggregate Size	3 mm
Fresh Wet Density (@ 23°C)	1.90 ± 0.10 g/ml
Working Time (@ 23°C)	~ 60 minutes
Yield / 25 kg bag	~ 16 Liters
Application Thickness	3 – 5 mm
Compressive Strength (BS EN 1015-11) @28 days	≥ 30.0 MPa
Flexural Strength (BS EN 1015-11) @28 days	≥ 2.5 MPa
Bond Strength (BS EN 1015-12) @28 days	≥ 0.5 MPa

Packaging

Shield Key Coat is supplied in 25 and 50 kg bags.

Safety Instructions

Shield Key Coat 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.

MICSHIELD®

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Application Instructions

1. Substrate Temperature

+5°C to +35°C

2. 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.

3. Mixing

Shield Key Coat requires 5.5 – 6.0 liters of potable water per 25 kg bag (or 11 – 12 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** 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.

4. Application

Apply the mixed **Shield Key Coat** to the prepared surface using a suitable spraying machine, Tyrolean box, or manually by suitable plastering trowel in a single coat 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 material to remain undisturbed for at least 48 hours.

5. Cleaning

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

6. Curing

The applied material of **Shield Key Coat** 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: 16 Liters

Consumption: 4.50 – 4.75 kg/m^2/3 mm thickness.

Coverage: 5.25 – 5.50 m^2/25 kg bag/3 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.
- Ensure substrate suitability prior to application of the product. To assess the suitability, a test area should be applied.
- Working area should be covered in case of harsh weather such as heavy rain, strong winds, dust, etc.

Technical Support

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

Address: Manaseer Group, 8th Circle, King Abdullah II St. 302
P.O. Box 925988 Amman, 11110, Jordan
Phone +962 6 5800600
Fax. +962 6 5833890
Email: info.shield@manaseer-ic.com
Website: www.manaseergroup.com

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