Shieldtop MT10

Micro Topping Cement-Based Decorative Skim Coat for Floors and Walls

TECHNICAL DATA SHEET

Description

Shieldtop MT10 is a single-component, cement-based, polymer-modified coating that provides a continuous decorative finish for floors and walls. **Shieldtop MT10** requires only the addition of clean water on site to form a smooth, uniform layer applied in thicknesses between 0.50 – 3 mm.

Uses

- Suitable for both new substrates and renovation works over prepared surfaces.
- Can be used for horizontal and vertical surfaces.
- For internal and external applications.
- Ideal for renewing existing concrete floors and improving the uniformity of their surface finish.
- Can be used in wet areas, kitchens, and toilets.
- Ideal for commercial and residential finishes.
- Suitable for various substrates such as concrete, cement boards, fair-faced concrete, plasters, renders, chipboards, gypsum walls, drywalls, and other stable surfaces, as well as for covering existing ceramic tiles and marble.

Characteristics / Advantages

- Easy to apply by trowel, roller, sprayer machine and brush.
- Available in multiple colors.
- Single-component powder requires only water.
- Excellent weathering resistance.
- Self-curing.
- High abrasion resistance.
- Environmentally friendly.

Consumption

Approximately 0.80 kg/m²/1mm thickness.
Consumption rate may vary due to surface roughness and pattern.

Packaging

Shieldtop MT10 is supplied in 20 kg buckets.

Shelf Life and Storage

Shieldtop MT10 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	Colored powder
Dry Density	1.35 ± 0.10 g/ml
Fresh Wet Density	1.60 ± 0.10 g/ml
Application Thickness	0.5 – 3 mm
Drying Time	2 – 4 hours per coat
Working Time @20 °C	60 – 80 minutes
Compressive Strength (EN 196-1)	8 MPa @7days 15 MPa @ 28 days
Flexural Strength (EN 12808-3:2002)	2.5 MPa @7days 4 MPa @ 28 days
Pull-off Adhesion (2 – 3 mm) (ASTM D4541)	2.5 – 3.0 MPa @28days
Abrasion Resistance (2 – 3 mm)(ASTM D4060)	190 – 200 mg @28 days
Water Absorption (2 – 3 mm) @7 days	@30 minutes: 50 – 65 g/m² @240 minutes: 100 – 130 g/m²
Water Absorption (2 – 3 mm) @28 days	@30 minutes: 35 – 50 g/m² @240 minutes: 80 – 100 g/m²

Application Instructions

1. Substrate Temperature

+5°C to +35°C

2. Surface Preparation

The substrate must be sound and free from dust, loose material, surface contamination, and materials that may reduce bond or prevent adhesion. Cracks, voids, and damage should be repaired using **Shieldrep CF**.

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 before application.

Use **Shieldbond AB30** to prime and seal old concrete surfaces before the application of **Shieldtop MT10**.

3. Mixing

The amount of water depends on the application method:

Sprayer, Roller or Brush: 14 – 15 L of water per 20 kg.
Final Finish Steel trowel (floors, Walls): 7 – 7.5 L of water per 20 kg.

Add the pre-measured amount o of water to a clean mixing bucket. Add **Shieldtop MT10** powder slowly to the water whilst mixing and continue mixing for 2 – 5 minutes until a smooth, homogenous, lump-free consistency is achieved. Allow this mixture to stand for 1 – 2 minutes and then remix for another 1 – 2 minutes prior to use. Do not add additional water to the mix.

4. Application

Shieldtop MT10 can be applied by sponge, brush, roller, spray, or trowel as follows:

Sponge, Brush & Roller Application:
Apply using a sponge, brush, or roller (Use a short-pile roller for smooth surfaces and a long-pile roller for rough or textured surfaces). For roller application, it is recommended to use a trowel for final finishing.

Spray Application:
Apply using a suitable spray gun and filter the material beforehand to prevent nozzle blockage. Operators must wear an approved dust respirator during spray application.

Steel Trowel Application:
Apply with a steel trowel to achieve a strong, durable finish with natural color variations.
For smooth floor finishes, apply one or two base coats using a squeegee or magic trowel, then apply a final steel-troweled coat. Sand the next day to enhance the finish. For a uniform look without color variation, use a magic trowel for the final coat.

Vertical Applications:
Use a slightly thicker consistency for vertical applications, apply by trowel or roller. For decorative finishes, apply by trowel in one or multiple colors to achieve an antique stucco effect, then sand lightly to achieve an elegant, polished finish.

5. Cleaning

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

6. Finishing

For extra protection, once the final layer of **Shieldtop MT10** is completely dry (after at least 24 hours), it is recommended to apply **Shieldcoat AS100, Shieldprotect Ultra,** or **Shieldclear Acrylic Liner Matt** directly over it to provide additional protection against environmental elements, enhance durability, and improve appearance.

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.
- Do not exceed the recommended water ratio, as it may affect performance and cause color changes.
- For flooring applications requiring thicknesses greater than 1 mm, apply in multiple layers, allowing each layer to dry completely for at least 2 – 4 hours before adding the next coat.

Safety Instructions

Avoid contact with the eyes and skin. In case of direct contact with the skin, wash the affected area immediately with water for several minutes. If it comes into contact with the eyes, rinse immediately with lukewarm water for at least 15 minutes and get medical advice or treatment if any emergency warning signs appear. For further information, refer to the Material Safety Data Sheet.

Technical Support

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

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