Monolevel RM

Waterproof One-Coat Cementitious Render

Product Overview

One component, thixotropic, polymer modified, fibre reinforced, waterproof one-coat render.

Description

MONOLEVEL RM is a pre-bagged, single component, fibre reinforced cementitious mortar which cures rapidly to produce a high performance, waterproof, fair-faced render. It can be quickly applied as a one-coat render on vertical, horizontal and overhead surfaces by trowel or spray.

Uses

Spray or trowel applied render producing a waterproof, fair-faced finish. Suitable for use as a Category CS IV One Coat Render for External and Internal use on Walls as described in EN 998-1.

Advantages

- Simply mixed with clean water, no need for primers.
- Thixotropic nature allows fast and easy application.
- Cost-effective one-coat application.
- Polymer modified for excellent adhesion and long-term durability in exposed external applications.
- Low cost application, 5-50mm applied in a single coat.
- Waterproof, 10mm resists 7 bar positive or negative.
- Conforms to the requirements of BS 8102:2009, the Code of Practice for Protection of Structures Against Water from the Ground, providing the optimum 'Grade 3' completely dry environment.
- High tensile strength, impact strength and crack resistance.
- High diffusion resistance to acid gases & chloride ions.
- Easily overcoated with specialist membranes to provide further protection and aesthetic quality.

Compliance

- UKCA & CE marked in accordance with EN 998-1.

Application Instructions

Preparation

All loose materials and surface laitance must be removed, preferably using wet grit or water blasting techniques or equivalent approved methods.

The areas to be repaired must be free from all unsound material including laitance dust, oil, grease, corrosion by-products and organic growth.

➢ The compressive strength of the parent concrete should be minimum 20 MPa.

The prepared substrate should be thoroughly soaked with clean water until uniformly saturated without any standing water.

Smooth surfaces should be roughened and reinforcement cleaned to bright steel using wet grit blasting techniques or equivalent approved methods. Power tools such as a needle gun, angle grinder or wire brush may be used on concrete which is not chloride contaminated.

Treatment of Steel Reinforcement

Treat exposed steel reinforcement with 2 x 1mm coats of **STEEL REINFORCEMENT PROTECTOR 841** applied by brush.

➢ Note - When carrying out repairs in new construction, it is not necessary to fully expose any reinforcing bars.

Priming of Concrete

MONOLEVEL RM does not generally require a primer. Highly porous substrates may be primed with a **POLYMER ADMIXTURE 850** slurry coat. The slurry coat should also be used when treating larger areas of waterproof concrete.

Mixing

MONOLEVEL RM should be mechanically mixed using a forced action pan mixer or in a clean drum using a slow speed drill and paddle. A normal concrete mixer is **NOT** suitable.

For normal applications, use between 2.3-2.7 litres of clean water per 25kg bag, depending on desired consistency. Mix for approximately 2-3 minutes, entraining as little air as possible. Use without delay.

➢ Note - These instructions must be adhered to as Flexcrete will not be responsible for failure due to incorrect mixing.

Placing

MONOLEVEL RM should be applied in layers not exceeding 50mm thickness using a rendering or spray technique to remove entrapped air. If necessary, support with shuttering to allow for compaction if working to reveals, etc. Care must be taken to ensure that an initial 5-10mm thickness of mortar is well placed and adhered before building up to larger depths.

For repairs which require multi-layer applications, ensure that previous layers are well keyed and stable, but not fully set before proceeding (typically 2-6 hours). Final profiling of a high quality is easily achieved with a steel float after allowing the surface to stabilise.

Curing

Normal concreting procedures should be strictly adhered to. It is important that the surface of the mortar is protected from strong sunlight and drying winds with **CURE-SEAL WB**, polythene sheeting, damp hessian or similar.

Limitations

Do not use **MONOLEVEL RM** when the temperature is below 5°C and falling. Not suitable for use on trafficked areas.

Cleaning and Storage

- All tools should be cleaned with water immediately after use.
- Materials can be stored for 12 months in dry, frost free conditions with unopened bags at 20°C.

Packaging

- **MONOLEVEL RM** is supplied in 25kg bags.

Yield and Coverage

- 14.5 litres per 25kg.
- 25kg covers 1.45m² at 10mm thickness.

Health and Safety

- Safety Data Sheets are available on request.

Application Top Tips

1. **DO NOT WET OUT OR PRIME** between layers.

2. If the mortar thickens, remix but **DO NOT ADD EXTRA WATER.**

3. Remove trowel marks using a wooden float, steel float or damp sponge once the surface has stabilised. Work in one direction to avoid fibres wicking.

4. Remove proud fibres by sanding prior to the application of a coating.

5. Can be overcoated with Flexcrete membranes to give a coloured, aesthetic finish.

6. Cold Weather Working (See separate Guide)

- ≥3ºC on a rising thermometer.
- ≥5ºC on a falling thermometer.

7. Hot Weather Working (See separate Guide)

- Store material in cool conditions to maximise working life.
- Shade applied material from strong sunlight.
- Spray apply a second mist coat of **CURE-SEAL WB.**
- If possible, avoid extreme temperatures by working at night.

Technical Data

Property	Standard	EN 998-1 Requirement	Typical Result
Compressive Strength Development @20°C	EN 1015-11	≥ 6 MPa	1 day 10 MPa 7 days 25 MPa 28 days 35 MPa
Adhesion After Weathering Cycles	EN 1015-21	Strong substrate: ≥ 2.0 MPa Weak substrate: ≥ 0.4 MPa	Strong substrate: 1.9-2.1 MPa Weak substrate: 0.4-0.5 MPa
Water Absorption	EN 1015-18	≤ 0.2 kg/(m^2.h$^{0.5}$)	Zero
Water Vapour Permeability Co-efficient (μ)	EN 1015-19	≤ 1/≤10	0.89 / 7.64
Flexural Strength	EN1015-11	-	8-10 MPa
Waterproofing	DIN 1048-1	-	Resists 7 bar negative pressure
Coefficient of Thermal Expansion	EN1770	-	1.82 x 10^{-5} °C^{-1}
Mixed Density		-	1900kg/m³ at 0.10 water:powder ratio
Mixed Colour		-	Concrete grey
Min Application Thickness Max Application Thickness		-	5mm per layer 50mm per layer
Min Application Temperature Max Application Temperature		-	5°C 35°C
Working Life (approx.)		-	30 minutes at 35°C
Reaction to Fire	EN 13501-1	-	A2 – s1, d0

The properties given above are obtained from laboratory tests: results obtained from on-site testing may vary according to site conditions.

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