

Structural Repair Mortar

FORMERLY FLEXCRETE MONOLEVEL RM

PRODUCT DESCRIPTION

A pre-bagged, single component, water-based (VOC-free), fibre reinforced cementitious mortar which cures rapidly to produce a high performance, waterproof, fair-faced render. It is supplied as a single component system ready for on-site mixing and use, requiring only the addition of clean water. Thixotropic, single component, polymer modified, waterproof one-coat cementitious render.

INTENDED USES

Designed as a one coat render for spray or trowel application on external and Internal walls as described in EN988-1.

Intercrete 4823 is fibre reinforced to provide excellent tensile strength, impact strength and the ability to resist cracking. The dense matrix provides excellent protection from the ingress of acid gases, moisture and chlorides. Can be applied at thicknesses from 5-50mm (0.2 - 2.0 inches) in a single coat which greatly reduces application costs. Highly waterproof resisting 7 bar hydrostatic pressure on both the positive and negative side when applied at 10mm (4.0 inches) thickness.

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.

PRACTICAL INFORMATION FOR INTERCRETE 4823

Volume Solids	100%			
Density	1900kg/m ³ (119lb/ft ³)			
Typical Thickness	5mm - 50mm (0.20 - 2.0 inches) dry			
Practical Coverage	A 25kg bag as supplied will cover 1.45m ² at 10mm thickness. Practical coverage will depend upon the surface profile and porosity of the area being coated and appropriate losses must be taken into consideration			
Method of Application	Trowel			
Shelf Life	12 months at 20°C (68°F).			
Pack Size	25kg packs			
Working Pot Life	35°C (95°F) 30 minutes			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
20°C (68°F) ¹				

¹ Not applicable

COMPLIANCE AND CERTIFICATION

When used as part of an approved scheme, this material has the following certification:

- CE-marked in accordance with EN 988-1. Suitable for use as a Category CS IV One Coat Render for External and Internal use on Walls as described in EN988-1



Protective Coatings

Structural Repair Mortar

SPECIFICATION CLAUSE

The fairing coat shall be a single component, thixotropic, fibre reinforced, polymer modified cementitious mortar. It shall comply with the following performance specification:

- Suitable for use in vertical and overhead areas without the need for primers, special lightweight aggregates or support.
- Compressive strength at 20°C (68°F) of at least 8MPa in 1 day and 30MPa in 28 days.
- Impermeable to water under 7 bar hydrostatic pressure.

SURFACE PREPARATION

Concrete

All surfaces should be clean and free from laitance, curing compounds, release agents, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. The preferred methods of surface preparation are wet grit or water blasting techniques. The strength of the concrete sub-base should be a minimum of 20MPa. The prepared substrate should be thoroughly soaked with clean water until uniformly saturated without any standing water.

Steel Reinforcement

Reinforcement should be cleaned, preferably by the use of wet grit blasting, to ISO 8501-1 Sa2½ / SSPC SP10. All exposed steel reinforcement should be treated with 2 x 1mm (40 mils) coats of Intercrete 4871, applied by brush (see relevant Product Data Sheet for full details). Note; when carrying out repairs in new construction, it is not necessary to fully expose any reinforcing bars.

APPLICATION

Mixing

Intercrete 4823 should be mechanically mixed using a forced action pan mixer or in a clean drum using a drill and paddle. A normal concrete mixer is NOT suitable.

For normal applications, typically use between 2.3 - 2.7 litres of clean water per 25kg bag. Normal mixing time depends upon the type of mixer used; 2-3 minutes is average. Use without delay.

Trowel

Recommended

Work Stoppages / Clean Up

Clean all equipment immediately after use with clean water.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

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PRODUCT CHARACTERISTICS

Concrete

Do not use when the temperature is below 5°C (41°F) and falling. Do not use Intercrete 4823 on waterproof concrete without referring to the Protective Coatings Technical department. Not suitable for use on trafficked areas

Priming

Highly porous substrates should be primed with Intercrete 4812 (See separate Data Sheet for full details).

Placing

Intercrete 4823 should be applied in layers not exceeding 50mm (2.0 inches) 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 (2.0-4.0 inches) thickness of mortar is well placed and adhered before building up to larger depths.

For repairs which require multi-layer applications, it is important to ensure that previous layers have been finished with a wooden or plastic float and are stable but not fully set (2-6 hours, dependent on temperature), prior to the application of subsequent layers. 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 Intercrete 4870, polythene sheeting, damp hessian or similar (see separate Data Sheet for full details).

CE mark applies to products manufactured at Tomlinson Road, Leyland, PR25 2DY England, under reference 2797-CPR-530942.

APPLICATION TIPS

- DO NOT wet out or prime between layers.
- If the mortar thickens, remix but DO NOT add extra water.
- Remove trowel marks using a wooden float or damp sponge once the surface has stabilized.
- Remove proud fibres by sanding prior to the application of a coating.
- Can be overcoated with Intercrete membranes to give a coloured aesthetic finish.
- Cold Weather Working (See separate Guide): $\geq 3^{\circ}\text{C}$ (37°F) on a rising thermometer, $\geq 5^{\circ}\text{C}$ (41°F) on a falling thermometer.
- 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 coat of Intercrete 4870. If possible, avoid extreme temperatures by working at night.

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TECHNICAL DATA / MECHANICAL CHARACTERISTICS

Standard and Property	BS EN 1504-2 Requirement	Result
BS EN 1015-11 Compressive Strength	≥ 6 MPa	28 days: 34.7 MPa
BS4551 Compressive Strength Development @ 20°C		1 day : 8-10 MPa 7 days: 20-25 MPa 28 days: 30-35 MPa
BS EN 1015-21 Adhesion After Weathering Cycles	Strong substrate: ≥ 2.0 MPa Weak substrate: ≥ 0.4 Mpa	Strong substrate: $\geq 1.9-2.1$ MPa Weak substrate: $\geq 0.4-0.5$ MPa
BS EN 1015-18 Water Absorption	≤ 0.2 kg.m ⁻² .h ^{-0.5}	0
BS EN 1015-19 Water Permeability Coefficient (μ)	≤ 1.0 / ≤ 10.0	0.89 / 7.64
BS EN1015-11 Flexural Strength		8-10 MPa
DIN 1048 Waterproofing		Resists 7 bar negative pressure
BS EN1770 Coefficient of Thermal Expansion		$\geq 1.82 \times 10^{-5} \text{C}^{-1}$
EN 13501-1 Reaction to Fire	Euroclass	Euroclass A2 – s1, d0

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

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Safety Data Sheet and the container(s), and should not be used without reference to the Safety Data Sheet (SDS).

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

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