

## Polymer Modified Cementitious Coating

### FORMERLY FLEXCRETE CEMPROTEC 1-SEAL

#### PRODUCT DESCRIPTION

Intercrete 4843 is a single component, engineering grade, polymer modified reactive cementitious coating with high adhesive properties. It is supplied ready for on-site mixing and use, requiring only the addition of clean water, or alternatively an SBR polymer to provide enhanced flexibility for crack bridging.

#### INTENDED USES

Designed for structural waterproofing of concrete and masonry in bathrooms, basements, cellars, Intercrete 4843 incorporates proven cement chemistry to provide a dense matrix coating which is suitable for permanent immersion.

#### PRACTICAL INFORMATION FOR INTERCRETE 4843

<b>Volume Solids</b>	100%
<b>Density</b>	1850kg/m <sup>3</sup> (115lb/ft <sup>3</sup> )
<b>Typical Thickness</b>	1mm (40 mils) per coat when applied by brush on vertical surfaces 2mm (80 mils) when applied by brush on horizontal surfaces 3mm - 6mm (1/8" - 1/4") when applied by trowel
<b>Practical Coverage</b>	A 25kg bag will cover approximately 7.9m <sup>2</sup> at 2mm thickness. Practical coverage will depend upon the surface profile and porosity of the area being coated and appropriate losses must be taken into consideration.
<b>Method of Application</b>	Trowel, Brush, Spray
<b>Shelf Life</b>	12 months at 20°C (68°F).
<b>Pack Size</b>	25kg packs
<b>Working Pot Life</b>	20°C (68°F) 30 minutes

<b>Drying Time</b>	Overcoating interval with self			
<b>Temperature</b>	<b>Touch Dry</b>	<b>Hard Dry</b>	<i>Minimum</i>	<i>Maximum</i>

20°C (68°F) <sup>1</sup>	1	1	1	1
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<sup>1</sup> Not applicable

#### COMPLIANCE AND CERTIFICATION

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

- CE-marked in accordance with BS EN 1504-2.
- Suitable for surface protection systems principles 1.3, 2.2, 8.2 as defined in BS EN 1504-2.



## Protective Coatings

## Polymer Modified Cementitious Coating

### SPECIFICATION CLAUSE

The structural waterproofing coating shall be a single component, thixotropic, polymer-modified cementitious coating. It shall be CE-marked in accordance with BS EN 1504-2, and shall comply with the following performance specification:

- Impermeable to water under 10 bar hydrostatic pressure

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### SURFACE PREPARATION

#### Concrete

The areas to be treated must be free from all unsound material, dust, oil, grease, corrosion by-products and organic growth. Smooth surfaces should be roughened, all loose material and surface laitance removed and reinforcement cleaned to bright steel (ISO8501-1 Sa2½ / SSPC SP10) using wet grit blasting techniques or equivalent approved methods.

Any water infiltration must first be stopped using Intercrete 4802.

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.

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### APPLICATION

#### Mixing

Intercrete 4843 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 application, use 4.25 litres of clean water per 25kg bag depending upon desired consistency. This equates to 5-6 volumes of powder to one volume of water. For use as a thin trowel applied render, add 2.5 litres of water. To enhance flexibility, it can be mixed with an SBR polymer admixture, which should be diluted with clean water before use. For optimal flexibility, dilute 3 parts SBR with 2 parts water and mix in the ratio of 4.5-5.0 parts of powder to 1 part diluted SBR mixture, Mix for a minimum of 2 minutes and use without delay.

#### Brush

Recommended

#### Trowel

Recommended                      Float application is also 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

#### Priming

Highly porous substrates may require sealing with a 1:1 dilution of SBR polymer admixture and clean water.

#### Placing

Intercrete 4843 is applied using brush, trowel or spray techniques. Care should be taken to ensure that air is not entrapped onto the surface. Apply the first coat, approximately 1mm (40 mils) thick, onto the prepared substrate. To ensure total protection, a second coat should be applied in the same way, after waiting approximately 30 minutes (depending on temperature). On floors, a single 2mm (80 mils) coat can be applied and entrapped air removed with a spiked roller. If mixed to a slightly drier consistency, the product can also be applied by steel float as a waterproof render at thicknesses up to 6mm (¼").

#### 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.

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### APPLICATION TIPS

- Regularly check coating thickness during application using the wet film thickness gauge available from AkzoNobel.
- Apply Intercrete 4870 curing membrane as an even, fine mist spray. Do not over-apply or allow to pond on the surface or cracking may occur.
- Intercrete 4843 is not a decorative coating and may dry with a patchy appearance until uniformly weathered. It may be overcoated with Intercrete membranes to give a coloured finish.
- When broadcasting aggregate, use techniques such that the particles are thrown upwards and fall evenly without disturbing the smooth surface of the coating. Use a grit blower on larger areas.
- In cold, humid conditions, condensation may form on surfaces treated with Intercrete 4843, resulting in darkening of finish and retardation of set.
- 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
EN 12190 Compressive Strength	>= 35 MPa (Class I)	28 days: 40.4 MPa
BS4551 Compressive Strength Development @ 20°C (Brushable)		1 day : 13 MPa 28 days: 45 MPa
EN 1542 Adhesive Bond (concrete)	>= 2.00 MPa	2.55 MPa
BS EN ISO 7783-2 Water Vapour Permeability (Equivalent Air Layer Thickness)	Class 1 S <sub>D</sub> ->= 5m	S <sub>D</sub> = 0.76m
DIN 1048 Water Permeability Coefficient (Equivalent Concrete Thickness)		8.68 x 10 <sup>-16</sup> m/sec 2.0mm = 1000mm of concrete
EN196-1 Flexural Strength		10.92 MPa
DIN 1048 Resistance to Water Pressure		10 bar (100m hydrostatic head) positive and negative)
EN 1062-3 Liquid Water Transmission Rate (Capillary Absorption and Permeability to Liquid water)	Class III (low) w <0.1kg/m <sup>2</sup> h <sup>0.5</sup>	w = 0.086 kg.m <sup>-2</sup> h <sup>0.5</sup>
EN 13501-1 Reaction to Fire	Euroclass	Euroclass F

**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.*

*This Technical Data Sheet is available on our website at [www.international-marine.com](http://www.international-marine.com) or [www.international-pc.com](http://www.international-pc.com), and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.*

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