

## Polymer Modified Cementitious Coating

### FORMERLY FLEXCRETE CEMPROTEC CLUTCH FILLER

#### PRODUCT DESCRIPTION

A two component, water based, epoxy and cementitious modified polymer mortar for sealing the interlock or clutch between sheet piles. It incorporates advanced cement chemistry, microsilica, fibre, epoxy and styrene acrylic copolymer technology to provide multi-functional protection with enhanced chemical resistance. When mixed, it can be applied with a pointing gun exhibiting a high degree of thixotropy to enable ease of application and filling of the void without sagging. It is specially formulated to chemically accelerate the passivation of ferrous metals even in the presence of chlorides and give maximum adhesion to steel.

#### INTENDED USES

A uniquely formulated cementitious material for sealing the surface gap at the interlock or clutch between piles prior to the application of an Intercrete cementitious anti-corrosion coating. Materials are pre-packaged in a convenient and easy to handle size, requiring only mixing on site. A unique blend of surfactants enables easy application with a pointing gun. Gel structure breaks down under shear to ensure complete filling.

Intercrete 4844 is self-priming, hydrates to provide an alkaline environment which chemically reacts with the substrate to accelerate the re-passivation of steel, providing excellent adhesion to steel and is tolerant to lower levels of steel preparation, including chloride contamination.

#### PRACTICAL INFORMATION FOR INTERCRETE 4844

<b>Volume Solids</b>	100% (based on wet film thickness applied being equal to dry film thickness)			
<b>Density</b>	1900kg/m <sup>3</sup> (119lb/ft <sup>3</sup> )			
<b>Practical Coverage</b>	Each 16.5kg composite pack will treat 85 linear metres of 10x10mm joint.			
<b>Method of Application</b>	Pointing gun			
<b>Shelf Life</b>	12 months at 20°C (68°F).			
<b>Pack Size</b>	16.5kg composite 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>	<b>Minimum</b>	<b>Maximum</b>
20°C (68°F) <sup>1</sup>	1	1	1	1

<sup>1</sup> Not applicable

#### COMPLIANCE AND CERTIFICATION

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



## Protective Coatings

## Polymer Modified Cementitious Coating

### SPECIFICATION CLAUSE

The clutch filler shall be a two component, water-based, epoxy and cementitious modified polymer mortar that incorporates microsilica, fibre, epoxy and styrene acrylic copolymer technology. It shall comply with the following performance specification:

- Compressive strength at 20°C (68°F) of at least 21MPa in 1 day and 50.5MPa in 28 days.
- Impermeable to water under 10 bar hydrostatic pressure such that a 2.0mm coating is equivalent to 6000mm of concrete.
- Flexural strength at 28 days (20°C, 65% RH) of at least 12.5MPa in accordance with BS 4551.
- Adhesive strength of at least 3MPa onto steel in accordance with BS 4551.

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### SURFACE PREPARATION

#### Steel

All surfaces to be coated should be clean and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Smooth surfaces should be roughened and all loose rust and mill scale removed using blast cleaning techniques. Steel should be cleaned back to bright metal, ideally to Sa2½ as defined in BS 7079: Part A1/ISO 8501 (Swedish Standard SIS-05-59-00) although lower forms of preparation are acceptable providing all loose oxides are removed. Arrises and welds should be ground to remove sharp edges.

Any water infiltration must first be stopped using Intercrete 4809.

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### APPLICATION

#### Mixing

Shake Part A (liquid) and pour into a suitable mixing vessel. Slowly add the Part B (powder) and mix for a minimum of 5 minutes until homogeneous. The modules must be mechanically mixed using a drill and paddle specially designed to entrap as little air as possible. Bottles of liquid and bags of powder are not to be split.

#### 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

Intercrete 4844 is self-priming and requires direct contact with the steel to afford maximum corrosion protection. Please contact our Technical Department for further advice.

#### Placing

Intercrete 4844 can be easily applied using a handheld pointing gun or pressure pointing equipment. To optimise the filling of the joint we recommend that it is filled from the bottom of the joint. Once the material has structured (typically a maximum of 10 minutes), excess material can be removed and the surface smoothed.

Carefully check on completion for voids and misses and spot treat where necessary. Allow to cure for a minimum of 1 hour before overcoating with Intercrete 4840.

#### Curing

It is important that the surface of Intercrete 4844 is protected from strong sunlight and drying winds. When not overcoating within the same tidal window, allow to cure for a minimum of 1 hour before immersion, and in extreme conditions use Intercrete 4870. Allow to cure overnight and wash down all surfaces with sweet water prior to the application of Intercrete 4840.

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### APPLICATION TIPS

- Care should be taken during application to ensure that no voids are left in the treated interlock or clutch area.
- If Intercrete 4844 thickens, remix for 30 seconds. DO NOT ADD WATER.
- Can be used to form small fillets around steel plates and other fittings welded to the surface prior to application of Intercrete 4840.
- 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.
- In cold, humid conditions, condensation may form on surfaces treated with Intercrete 4844, 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.
- Do not use any Part A which has been frozen.
- 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.
- In a tidal zone, areas overcoated with Intercrete 4840 must be allowed to cure for a minimum of 2 hours before immersion. Protect from abrasion or aggressive tidal flow until set.

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### TECHNICAL DATA / MECHANICAL CHARACTERISTICS

Standard and Property	BS EN 1504-2 Requirement	Result
BS4551 Compressive Strength Development @ 20°C		1 day : 21.0 MPa 7 days: 45.0 MPa 28 days: 50.5 MPa
Adhesive Strength		28 days: 3.0 MPa
EN196-1 Flexural Strength	-	12.50 MPa

### 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.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

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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