

Polymer Modified Cementitious Flooring

FORMERLY FLEXCRETE CEMPROTEC LEVELLING COAT

PRODUCT DESCRIPTION

A two component epoxy and polymer modified cementitious coating/wearing screed for levelling and waterproofing concrete substrates. It incorporates advanced cement chemistry, metakaolin, fibre, epoxy and styrene acrylic copolymer technology to give enhanced performance and excellent adhesion to concrete surfaces. When mixed, it exhibits a degree of flow to enable ease of application by pouring or pumping techniques to give an even finish. It hydrates to form a dense screed, which exhibits both polymeric and resinous properties giving low permeability to water and ensuring long term performance. It is specially formulated to harden rapidly to form a durable surface, which can typically be overcoated within 24 hours.

INTENDED USES

Designed as a versatile, two component cementitious coating/wearing screed for levelling and waterproofing tamped or uneven concrete floors, or floors with no waterproofing membrane. Intercrete 4853 can be used as a waterproof cementitious coating, an underlayment or as a wearing screed to provide resistance to abrasion and trafficking, including level and sloping substrates and ramps.

Can be applied in thicknesses ranging from 0 - 60mm. Suitable for application to saturated substrates, or floors with no waterproofing membrane, without risk of blistering.

PRACTICAL INFORMATION FOR INTERCRETE 4853

Volume Solids	100% (based on wet film thickness applied being equal to dry film thickness)			
Density	2000kg/m ³ (125lb/ft ³)			
Typical Thickness	0-60mm (0-2.5 inches) for decks and floors Minimum 2mm (80 mils) as a moisture barrier for foot traffic Minimum 5mm (200 mils) as a moisture barrier for heavily trafficked areas			
Practical Coverage	On prepared surfaces, a 30kg pack will cover approximately 3m ² at 5mm thickness			
Method of Application	Trowel, Squeegee, Skid Leveller			
Shelf Life	12 months at 20°C (68°F).			
Pack Size	30kg composite packs			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
20°C (68°F) ¹	1	1	1	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 BS EN 1504-2. Suitable for surface protection systems principles 2.2, 5.1, 6.1, 8.2 as defined in BS EN 1504-2.
- CE-marked in accordance with EN 13813 Class CT-C40-F10-AR1.



Protective Coatings

Polymer Modified Cementitious Flooring

SURFACE PREPARATION

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, water blasting techniques or scabbling to provide a roughened surface. Areas still exhibiting signs of oil, grease, etc., must be treated with a proprietary degreaser. In instances of heavy contamination, it may be necessary to use hot compressed air equipment, flame spalling or steam cleaning techniques. All debris should be removed to leave a thoroughly clean, dust-free, open-textured surface. 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. To prevent outgassing, the substrate should be sealed with Intercrete 4850, at a typical coverage rate of 5m²/litre. Allow to become transparent, typically 1-3 hours dependent on climatic conditions, before proceeding.

APPLICATION

Mixing

It is important to ensure that a continuous supply of mixed material is available for laying. Intercrete 4853 is supplied in two parts; a liquid component (Part A) and a powder component (Part B). MIX FULL UNITS ONLY. Shake Part A thoroughly and pour into a suitable mixing container, then slowly add Part B and mix for a minimum of 5 minutes until homogeneous, without any lumps. Mixing should be carried out using a slow-speed drill and paddle, designed to entrap as little air as possible. On larger contracts, multiple packs can be mixed at once. To maximize the working life, the Part A (liquid) should be stored in cool conditions or chilled in cold water.

Skid Leveller

Recommended

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.

Polymer Modified Cementitious Flooring

PRODUCT CHARACTERISTICS

Joints

All construction joints and 'live' cracks in the existing floor must be continued through into the new coating. The material should be continued into the faces of joints or cracks. Allow to cure for a minimum of 24 hours before reinstating joints with a suitable sealant.

Placing

Intercrete 4853 should be poured or pumped onto the prepared surface and spread to the required thickness with a trowel, squeegee or pin leveller. Lightly roll the top surface with a spiked roller to remove entrapped air and to provide a slightly dimpled finish. Finishing must be completed within the working life of the material and no later than 10 minutes after placing. Allow to cure for a minimum of 4 hours before subjecting the application to light foot traffic.

Curing and Overcoating

Normal procedures relating to curing of cementitious products should be strictly adhered to. The surface must be protected from strong sunlight, drying winds and high air movements, to prevent skinning during placing and rapid drying out in the plastic state. On unsanded finishes, the coating must be cured using Intercrete 4870, taking care to avoid overspray onto surfaces yet to be treated.

If overcoating with Intercrete 4851, allow to cure overnight and prime the surface with Intercrete 4850 prior to progressing.

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

APPLICATION TIPS

- Keep the wet edge live with a steady supply of mixed material and regular spike rolling.
- Regularly clean and dry spiked rollers to avoid material build-up.
- Use spiked shoes during application to avoid disturbing the coating.
- Regularly check coating thickness during application using the wet film thickness gauge available from AkzoNobel.
- Fresh material can be joined up to existing hardened material using a simple butt joint. Apply tape to the hardened material and apply fresh material up to it. Remove tape whilst wet to leave a neat edge.
- If overcoating with Intercrete 4851, the surface must be primed with Intercrete 4850.
- Care should be taken during application to ensure that air is not entrapped into the surface.
- 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. If possible, avoid extreme temperatures by working at night.

Polymer Modified Cementitious Flooring

TECHNICAL DATA / MECHANICAL CHARACTERISTICS

Standard and Property	BS EN 1504-2 Requirement	Result
EN 12190 Compressive Strength	>= 35 MPa (Class I)	28 days: 45.0 MPa
EN196-1 Flexural Strength		10-15 MPa
EN 1542 Adhesive Bond	>= 2.00 MPa	3.28 Mpa: Concrete >2MPa: Asphalt (substrate failure)
EN13687-1 Thermal Compatibility	>= 2.00 MPa	3.10 MPa
BS EN ISO 7783-2 Water Vapour Permeability (Equivalent Air Layer Thickness)	Class 1 S _D -<= 5m	S _D = 1.32m
DIN 1048 Water Permeability Coefficient (Equivalent Concrete Thickness)		3.44 x 10 ⁻¹⁴ m/sec (7 day cure) 13.0mm = 1000mm of concrete
EN 1062-3 Liquid Water Transmission Rate (Capillary Absorption and Permeability to Liquid water)	Class III (Low) w <0.1kg.m ⁻² .h ^{-0.5}	w = 0.098 kg.m ⁻² .h ^{-0.5}
EN1770 Coefficient of Thermal Expansion	<= 30 x 10 ⁻⁶ K ⁻¹	15.2 x 10 ⁻⁶ K ⁻¹
EN 13501-1 Reaction to Fire	Euroclass	Euroclass A2 _{FL} – s1

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 or 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.

Copyright © AkzoNobel, 15/04/2019.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com