

FLOORSHIELD ECC Three Component Epoxy Cementitious Temporary Moisture Barrier

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FLOORSHIELD ECC is a three-component epoxy modified cementitious self-smoothing temporary moisture barrier and underlayment. It is applied at a thickness of 2mm-4mm, act as a levelling layer or smoothen the rough and irregular concrete surface, before installing resinous flooring, vinyl tiles or carpet. It is moisture tolerant, provide temporary moisture barrier to damp and green concrete surfaces, prior to resinous floor coating application.

Product Features:

- Moisture tolerant to damp substrates during application.
- Excellent flow ability and self-smoothing.
- High mechanical strength and early strength.
- Excellent adhesion strength to sound prepared surface.
- Compatible with wide range of topcoats.

Application Area:

- Ideal to be used as temporary moisture barrier on damp or green concrete substrate that has achieved ≥ 25 N/mm² compressive strength before resinous floor coating applications.
- Ideal to be used as self-smoothing underlayment on rough and irregular surface, to provide smooth finish before resinous flooring, vinyl tiles or carpet is installed.

Product Type	Product Type	Color / Finishing	Recommended Substrate	Pack Size
Epoxy Modified Cementitious	Underlayment	Ligh Grey (Matt Finish)	Concrete Floor	Part A: 3.5kg Part B: 1.5kg Part C: 19kg

Technical Data

Density (28°C) : 2.00 kg/L
 Material Consumption : 2kg/m²/mm
 Pot-life @ 28°C : 25 min

Recoat and Curing Time

	22°C	28°C	32°C
Over Coat	48 hours	36 hours	24 hours
Light Traffic	3 days	2 days	2 days
Fully Cured	7 days	7 days	7 days

Shelf life : 12 months (In unopened container and good conditions with 10°C to 30°C)

Typical Technical Data

Properties	Test Method	Performance
Adhesive Strength, N/mm ²		> 1.50 (concrete failure)
Flexural Strength, N/mm ²		8.0
Compressive Strength, N/mm ²	(BS1881:Part116:1983)	40.0 (28 days)
Impact Resistance, mm	BRE Screed Tester	0.3
Tensile Strength, N/mm ²		6.0

*All values given are subject to 5-10% tolerance

Recommended System

Primer : AQUAPRIME EPOXY PRIMER – RED (150 µm)
Underlayment : **FLOORSHIELD ECC (2mm-4mm)**
 Overcoat : AQUAPRIME EPOXY PRIMER – OFF WHITE (150 µm)
 Finishing Coat : AQUA EPOXY / FLOORSHIELD SF EPOXY FINISH

Application Method

Substrate Requirement	<ul style="list-style-type: none"> Concrete or screed substrate compressive strength should be of minimum 25 N/mm² and adhesive pull off strength of 1.5 N/mm² (concrete failure).
Surface Preparation	<ul style="list-style-type: none"> The substrate must be thoroughly clean and without standing water, free from dust, grease, and oil. All the contaminants, previous coatings and impurity must be removed till bare substrate. Rough contaminants and high spots should be removed by grinding. Any cracks, honey combs, water leakage area should be repaired by Nippon Paint Repair System (for more detail, please refer to Nippon Paint Technical Department) before the flooring work proceed. The concrete surface should be flat and free from holes and undulations. Any holes and undulations should be resurfacing with Nippon Paint Scratch Coat System. The concrete surface shall be prepared by mechanical using abrasive blasting or scarifying equipment to remove cement laitance and achieve required surface profile. Remove all loose material and dust by vacuum or mechanical means.
Mixing	<ul style="list-style-type: none"> Shake Part A well and pour it into a 20L pail to mix together with Part B. Start mixing using a helical mixer for approximately 5 seconds. Add in Part C into mixture, and mix for another 2 minutes to achieve homogeneous mixture.
Application	<ul style="list-style-type: none"> FLOORSHIELD ECC shall be applied within its pot-life to a primed surface with silica broadcasted. FLOORSHIELD ECC shall be mixed and applied only by specialist flooring contractors who have been well-trained with the correct application procedures. Spread the mixed materials to thickness of 2mm to 4mm and consolidate with notched squeegee or pin rake (set to the nominated thickness) to the correct depth as desired. Immediately release any trapped air by spike rolling.
Special Note	<ul style="list-style-type: none"> Overcoat FLOORSHIELD ECC with AQUAPRIME EPOXY PRIMER – OFF WHITE, within 24 -36 hours (depend on the weather and ventilation), which the surface moisture content should be below 4%. Ensure the surrounding is well-ventilated, to minimize excess moisture accumulate in confine space. Avoid condensation and water contact at least 24 hours after application. Avoid extreme condition which may affect the drying speed after application (high temperature and low humidity).

Cleaning

Clean all the tools and application equipment with water before the products harden.

Storage and Transportation

This product should be stored in original container in a shaded or cool and adequate ventilation warehouse. The storage temperature should be 10-30°C. This product should be away exposure from rain, UV, sunlight, source of flame and heat. When transporting, care must be taken. Failure to comply with the recommended storage may result in considerable premature deterioration of the product and shorten its shelf life.

Environmental Conditions During Application

Apply temperature: 5-35°C. Do not apply when the surface to be applied is less than 3°C above the dew point. Temperatures should not fall below 5°C in the 24hours after application. Do not apply when the relative humidity exceeds 90%.

Safety Precautions

- Keep container tightly closed and keep out of reach children or away from food and drink.
- Ensure good ventilation during application and drying.
- When applying paint, it is advisable to wear eye protection.
- In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
- Remove splashes from skin by using soap or water.
- Paint must always be stored in a cool place.
- When transporting paint, care must be taken. Always keep container in a secure upright position.
- Dispose off any paint waste in accordance with the appropriate Environment Quality Regulations.

Note

The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself. We reserve the right to alter the given without prior notice.