

POLYSCREED PMC

Polymer Micro Concrete Floor Overlay System

Polyscreed PMC is a ready to use, two component micro concrete overlay system incorporating a blend of cement, polymers, proprietary additives and graded aggregates to produce a high performance, impact and abrasion resistant floor finish that is functional, strong and resistant to thermal shock.

Polyscreed PMC results in an ideal surface finish for industrial applications and is able to accept any subsequent floor covering including resin based systems.

UNIQUE PRODUCT BENEFITS

- Improved application.
- Good workability.
- High early strength.
- Impact and abrasion resistant.
- Chemical resistant.
- Thermal shock resistant.
- Fast curing.
- Supplied in kit form.
- Functional and versatile
- Dense, non-shrink finish.

TECHNICAL DETAILS

Compressive Strength	± 80 MPa, 28 day
Working Time	45 min.
Initial Cure	8 hrs
Hard Cure	24 hrs
Full Cure	5 days
Appearance	Cementitious mortar
Colour	Grey, other colours on request
Consistency	Workable mortar
Mix Ratio	5 L Liquid / 40 kg Bag
Kit Yield	20 L
Nominal Thickness	10 mm
Maximum Thickness	100 mm
Coverage @ 10 mm	2.0 m ² / kit
Spreading	Screed bars and trowel to finish
Finishing	Steel float
Shelf Life	6 months

PACKAGING

45 kg, 2 part kit

APPLICATIONS:

- Heavy duty floor overlay screed
- Industrial factory floors
- Warehouses and storage
- Food & beverage facilities
- Cold rooms
- Automotive workshops
- Engineering shops
- Commercial floors
- Underfloor heating
- Repairs to damaged concrete

Leading manufactures of specialist epoxy and polyurethane flooring systems, specialised construction and corrosion protection products.

Distribution facilities nationwide

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SUBSTRATE REQUIREMENTS

Concrete substrates must have a minimum compressive strength of 20 to 25 MPa, a minimum tensile pull-off strength of 1.5 MPa and be free of oil, fat, grease, dust, and loose friable materials. Substrate should be dry to 75% Relative Humidity.

Note: Any filling of blowholes/voids and surface levelling of substrate can be achieved using appropriate products within Technical Finishes Construction Range (please speak to one of our technical sales representatives).

PREPARATION

Remove laitance and surface contamination by diamond grinding, shot blasting or scabbling to cleanly expose the main aggregate. Remove dust and debris by vacuum prior to screeding. Mark out existing control joints for post cutting once the product has cured. The area to be screeded must be weather-tight (i.e. all roofs, windows and doors are covered).

PRIMING

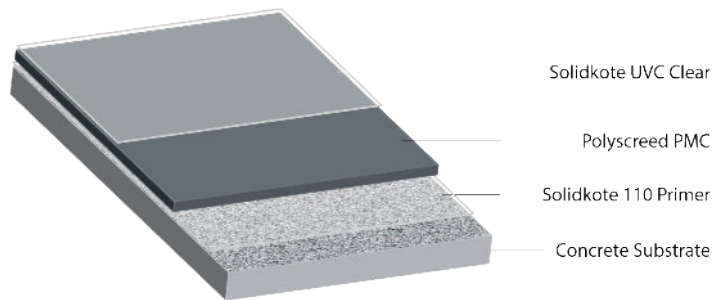
Solidkote 110 wet-to-dry epoxy (supplied separately) is applied just prior to screeding with an open time up to 45 minutes. Mix the primer for minimum 5 minutes and ensure the walls and bottom of the mixing vessel are scraped during mixing. Pour the primer out in a long ribbon and spread using a steel trowel in a scraper coat fashion, then back roll the primer with a mohair roller to achieve coverage of 4 - 6 m² / L. If the primer is absorbed into the surface rapidly, apply additional primer to achieve a visibly wet layer on the substrate which ensures proper bonding. If the primer is allowed to cure (tack free), apply a new coat of primer before proceeding.

INSTALLATION:

Ensure adequate lighting to achieve an even and level spread. Installation should not be attempted unless application team is fully trained.

Mixing

Mix the Polyscreed PMC kit as supplied. Decant the polymer liquid into a pan mixer or a conventional concrete mixer and add the bag slowly to produce a uniform mixture.



Perform a snow ball test to ensure cohesion. Do not add additional water to the mix as this will result in shrinkage crack development during curing.

Placing

Empty the mixture onto the pre-primed floor and rake out between 10 mm screed bars. Level the mix out with a straight edge to achieve the required level or slope and finish the surface off with a steel trowel. Remove the screed bars and fill in any gaps.

The mixed material should be placed and floated within 20 minutes of mixing. Polyscreed PMC is designed to self-compact when placed by hand but must be assisted with trowelling. Ensure all gaps and pin holes are closed.

For applications over underfloor heating systems apply the Polyscreed PMC in two layers, a base layer to ensure full compaction around the heating pipes directly followed by a top layer to enclose and finish off the floor system.

Finishing

A good standard wood or steel float finish is adequate, but generally a tightly closed and flat, steel trowelled finish is specified. After 1 - 2 hours after initial placing, power-float the surface, using a flick of Polyscreed Liquid mixed 1:1 with water to close the surface to a tight, dense finish. The same process may be achieved by hand floating with a steel trowel should a power float not be used. Power trowelling by skilled operatives is acceptable providing the required surface regularity is maintained. Polyscreed can be trowelled to receive floor finishes directly.

Curing

Cure the screed under polythene sheeting for a period of 5 days if bonded or 10 days if unbonded. The polythene sheet must be well lapped and completely cover all exposed edges. Premature drying generally can increase the risk of cracking and reduce the screed wear resistance.

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Machine Application

For areas of 50 m² or more the use of screeding machines may be found to be beneficial. On medium to large size jobs, outputs of 100 m² per hour are possible with reduced manual effort. Consistency of compaction and regularity are simpler to achieve by power trowel which leaves a uniform, smooth finish. The cured product may be polished if so desired.

SEALING

Seal with a penetrating sealer such as Solidkote UVC to guard against stains.

MAINTENANCE

Regular cleaning extends the service life of the Polyscreed system. Maintenance is to be carried out using Liquid Action which complies with SANS 1344 Medium Duty Solvent Detergent (2112/P3325/10/ID).

HEALTH AND SAFETY

Please read Safety Data Sheet and specific health and safety data for this product provided in compliance with the requirements of OHSA No.85 of 1993. The finished system is not hazardous to health or the environment.

WARRANTY

Technical Finishes products are manufactured under high quality standards and are warranted against defective materials and are sold subject to standard Terms and Conditions of Sale, copies of which can be obtained upon request. Technical Finishes deals with approved applicators and carry a back to back warranty with these clients. Technical Finishes cannot be held responsible for the workmanship in surface preparation and application of our products, it is understood that the approved contractor will guarantee such workmanship and application. It is vital that the application is done in accordance to our specification.

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