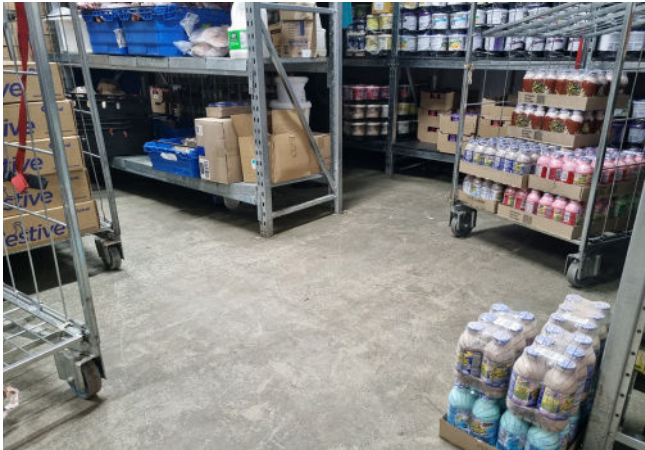


POLYSCREED PMC

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

40 kg Bag and 5 L Polyscreed PMC Liquid

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

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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).

It is standard practice to ensure grooves 5 mm by 5 mm, run parallel to and 150 mm from all walls, plinths, finished edges, expansion joints, columns, drains, etc.

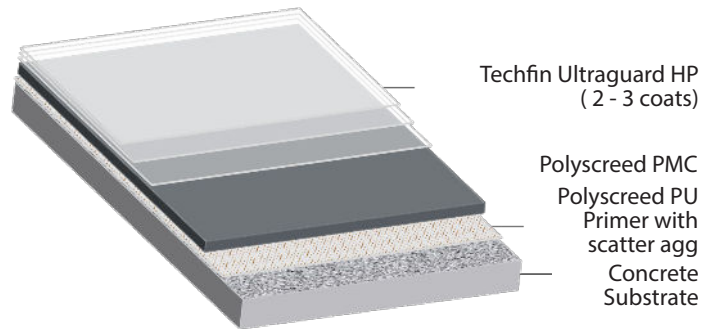
PRIMING

Green Concrete

The concrete must be placed to a standard wood float finish with minimal laitance and cured for 2 - 3 days. Dampen the surface and remove excess ponding water. Prime with a bonding slurry primer consisting of *Polyscreed PMC Liquid* mixed with fresh cement in a ratio of 2 parts cement to 1 part Liquid is recommended. The bonding slurry must be applied by block brush just before screeding commences as a wet on wet application. Should the bonding slurry be allowed to dry hard, a new layer must be applied before screeding recommences. Additional Polyscreed PMC Liquid and cement sold separately.

Existing Cured Concrete

For existing cured and dry concrete, remove the existing finish to expose the concrete by scabbling. Mix and apply *Polyscreed PU Primer* at a rate of 2 m² / L (500 um) and broadcast *Scatter Stone 1 - 3 mm* into the wet primer to full rejection (2 kg / m²) and allow to cure



overnight. 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. Remove excess, unbonded scatter aggregate and commence screeding of the Polyscreed PMC system directly onto the cured primer system.

INSTALLATION:

Ensure adequate lighting to achieve an even and level spread. Installation should not be attempted unless application team is fully trained and approved by Technical Finishes SA with certification.

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, flowable screed 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.

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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.

Screed Finish

A good, 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 PMC can be trowelled to receive floor finishes directly.

Curing

Cure the screed under polythene sheeting for a period of 5 days minimum. Freezer temperatures can only be dropped after 12 days. 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.

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 *Techfin Ultraguard HP* applied in 2 - 3 coats at a rate of 30 m² / L using a mohair roller or microfibre pad.

MAINTENANCE

Regular cleaning extends the service life of the Polyscreed PMC 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 OHS Act 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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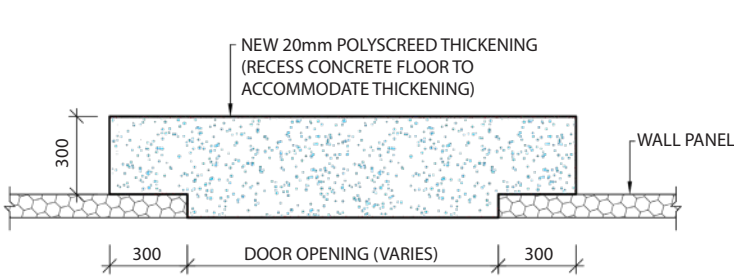


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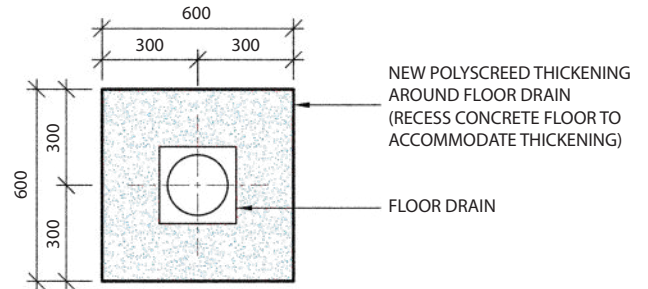


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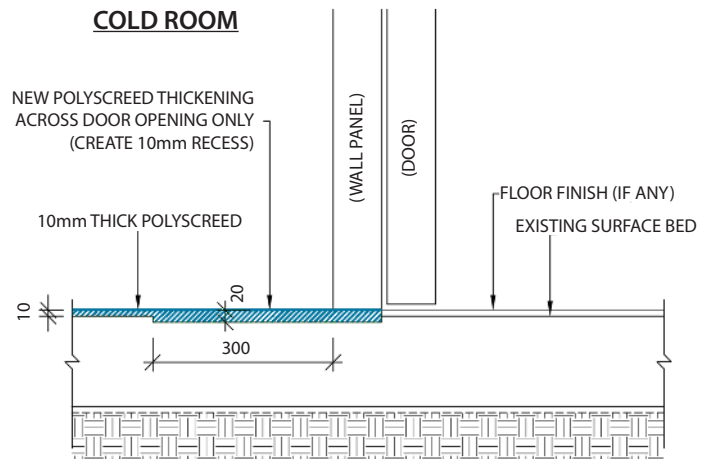
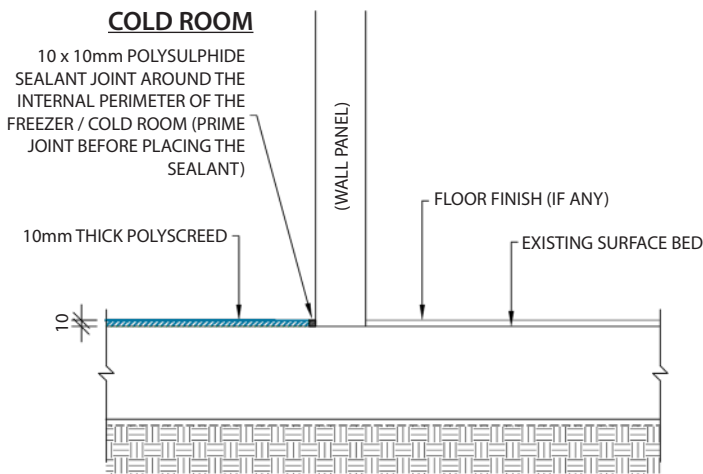
SPECIFICATION DETAIL



TYPICAL POLYSCREED THICKENING AT DOOR THRESHOLD



TYPICAL POLYSCREED THICKENING AT FLOOR DRAIN



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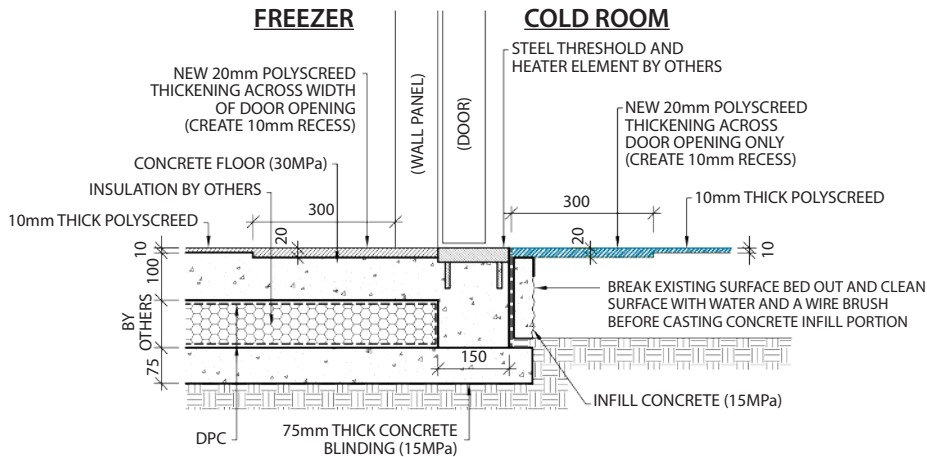
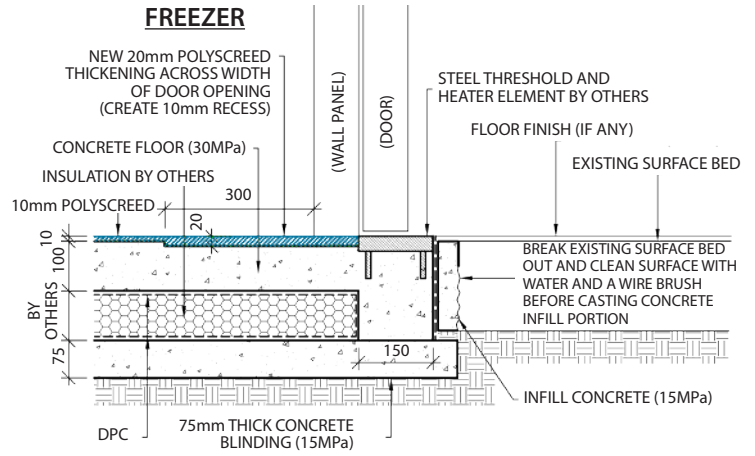
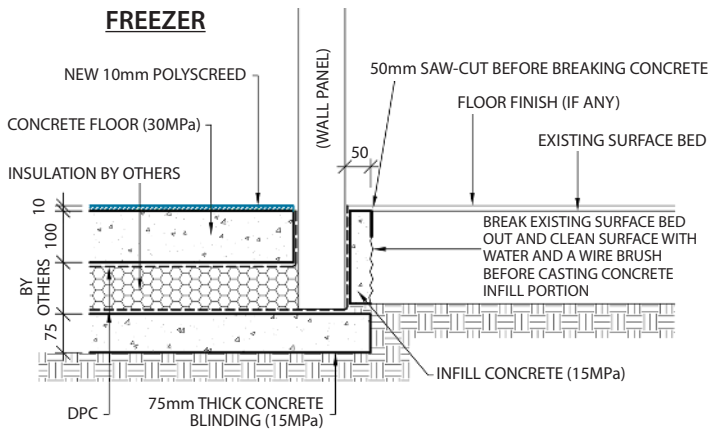
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