

Technical Data Sheet

Polymer Crete FC Flooring System



Product Description

Polymer Crete FC flooring is an advanced polymer modified, ultra-rapid cure screed which can be used as a high performance floor finish, or as a levelling and/or intermediate screed, in situations where conventional concrete, cement, polymer and granolithic screeds cannot provide adequate performance within a time limited installation programme.

Due to the polymeric action of the modified styrene butadiene emulsion and the addition of highly modified 'rapid cure' cements, the Polymer Crete FC screed has superior substrate adhesion, good compressive, tensile and flexural strengths and rapid installation and cure times. Polymer Crete FC flooring also provides chemical, slip and temperature resistance and has greatly reduced permeability. Polymer Crete FC is ideal for overlaying with the full range of John Lord resin flooring products.

Key Benefits

- Extremely rapid cure
- Good compressive strength
- Non toxic
- Thermal shock resistant
- Abrasion and impact resistant
- Low permeability
- Slip resistant

Technical Data

John L. Lord & Son Ltd is an ISO 9001:2008 accredited company and all products are manufactured strictly to ISO quality standards.

Performance Data

Compressive Strength @ 4hours	14 N/mm ²
Compressive Strength @ 28 days	60 N/mm ²
Flexural Strength:	8 N/mm ²
Tensile Strength:	6 N/mm ²
Bond Strength to Concrete:	Failure in concrete
Temperature Resistance:	Constant 5°C to 90°C
Flash Steam Cleanable:	Yes
Water Permeability (after 72 hours immersion):	2.0%

All figures are measured and expressed under laboratory conditions: Actual performance may vary from the above values depending upon site conditions.

Physical Properties

Complies with BS 8204-6 / FeRFA Type 6, System Make-Up:

Primer(s):	1 application Polymer Crete primer
System:	1 application of bonding grout 1 application Polymer Crete FC screed
Sealer Coat(s):	None
Optional Variations:	Clear, urethane sealer coats

System Details:

Finish:	Uniform profile, matt
Thickness:	12mm to 250mm in a single application
Colour:	Grey, red, green, buff or brown

Chemical Resistance

Resistant to a limited range of dilute chemicals, alkalis, acids, oils, greases and salt solutions. For full details consult the John Lord Technical Dept.

Curing Time

A completed resin floor can go into service after the following minimum cure periods at 18°C and above:

Foot Traffic:	4 to 6 hours
Heavy Traffic:	24 hours
Full Cure:	7-10 days

Shelf Life and Storage

The product should be kept in its original unopened container until use.

The product should be stored in weather tight conditions at temperatures between 10°C and 25° C, avoiding direct sunlight. Under these conditions this product has a shelf life of up to 6 months.

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Application Information

John Lord recommends that all products are installed by their own Contracts Department who provide a professional service with experienced Project Management supervision and skilled, trained and NVQ/CSCS approved employees.

Suitable Applications

- Dry and Wet Processing Areas, eg. Food Processing
- Engineering and Manufacturing Facilities
- Warehousing
- Workshops and Plant Rooms
- Intermediate screed for resin based finishes

Substrate Suitability and Preparation

A separate technical data sheet is available on 'Substrate Suitability and Preparation'.

Application Temperature

Air temperatures should be maintained between 8°C and 20°C during the application of this product. We also strongly recommend that the application area is maintained to temperatures of between 8°C and 20°C for up to 24 hours prior to application to allow the ambient and substrate temperatures to regulate before the application commences. Materials should also be kept in a warm area of 10°C minimum temperature for 12 hours prior to application. Ensure adequate ventilation during application.

Priming

The dry, prepared, dust-free substrate should receive a roller-applied coat of Polymer Crete primer. For maximum adhesion the primer should be allowed to cure overnight before overlaying the following day.

System Application

A bonding grout should be liberally applied by brush to the primed substrate immediately prior to the application of the Polymer FC Crete screed. If it reaches initial cure prior to overlaying, a further application must be made. To mix the Polymer Crete FC screed, blend the graded aggregates, chippings and Polymer Crete FC cements with the latex polymer in a forced rotation mixer, then add pure water to achieve the desired, semi-dry consistency. Install the screed with the aid of an aluminium screeding straightedge and finish with a plastic or steel float to a minimum thickness of 12mm for a levelling or fall screed. Polymer Crete FC can be used to create falls either a ramp between different levels or comprehensive floor falls to drainage. Structural mesh reinforcement is recommended for thicknesses over 75mm. The screed should be conditioned under lapped polythene immediately after installation (within 10 minutes) for 10 hours to 12 hours to ensure hydration of the cement.

NOTE: For rapid installation programmes, Epigard Fastrac primer can be used as an alternative primer. One application of Epigard Fastrac at a coverage rate of between 0.5kg/m² and 1.25kg/m² (depending on substrate porosity) directly onto the prepared concrete surface replaces both the Polymer Crete primer and bonding grout and can be overlaid with the Polymer Crete FC screed 2 to 3 hours after application.

Joints

All known expansion joints should be followed through the resin floor finish using Epiflex Jointing Mastic. If concrete movement or cracking takes place after application then reflective cracking of the topping may occur.

In-Service Maintenance

Good housekeeping and regular cleaning can considerably extend the service life of a resin screed floor and will enhance the floor's appearance and reduce soiling tendencies.

Suitable cleaning methods for this product include:

- Rotary scrubbing machine or hot water washing (up to 90°C) with suitable detergent products – see John Lord Cleaning Guide for further details.
- Flash steam cleaning is suitable on an occasional basis.

Statement of Responsibility

The technical data and application information within this John Lord Technical Data Sheet is provided as an introduction to the system only and may vary according to on-site or environmental conditions. As the information provided is of a general nature, no guarantee is implied and it is the responsibility of the client or user to discuss in detail with John L. Lord & Son Ltd the suitability of the product for a particular application. John L. Lord & Son Ltd cannot accept any responsibility for work and the subsequent performance of their systems that are not controlled by their own contracting services.

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