johnlord SPECIALIST FLOORING

C1/SfB (43) Pr4

Technical Data Sheet

EPIGARD

ES100

DESCRIPTION

Epigard ES100 is a group of heavy-duty, chemical and abrasion resistant floor screeds, which have been developed to provide long-term durability in a range of demanding environments. Epigard ES100 also offers effective wear and slip resistance in a variety of environments. Epigard ES100 is offered with an optional sealed surface to aid cleaning and enhance chemical resistance. In addition to the standard floor screed, ES100 is available as coving grade material, a wall render system, a patch pack kit for repairs, and a specially formulated food grade version. Please contact John Lord for further information on any of these grades.

KEY BENEFITS

- Chemical resistant
- Temperature resistant
- Slip resistant
- Excellent substrate adhesion
- Abrasion and impact resistant
- Easily cleaned – optional sealed surface
- Matching coving/ render/patch packs available
- Non-tainting

TECHNICAL DATA

John Lord is an ISO 9001:2000 accredited company and all John Lord products are manufactured strictly to ISO quality standards.

Performance Data

Compressive Strength:	70 N/ mm^2
Flexural Strength:	28 N /mm^2
Tensile Strength:	17 N /mm^2
Bond strength to concrete:	Failure in tensile strength of substrate
Temperature Resistance:	Constant up to 75-85°C dependant on in-service conditions
Flash Steam Cleanable:	Yes
Water Permeability:	1.5 % (unsealed)

All figures are measured and expressed as per laboratory conditions. Actual performance may vary from the above values depending on site conditions.

Physical Properties

Complies with BS 8204-6 / FeRFA Type 6

System Make-Up:

Primer (s)	1x coat Epigard ES100 Primer
System	1 application Epigard ES100
Sealer Coat (s)	Optional
Optional Variations	Optional ES100 Sealer coat Variations: Cove Grade, Wall Render, Patch Pack, Food Grade, Anti-slip

System Details:

Finish:	Slip resistant, optional sealed finish (smooth or anti-slip)
Thickness:	5-9 mm
Standard Colours:	Buff, Terracotta, Green, Red, Dark Grey + many other bespoke colours

Chemical Resistance

Resistant to a wide range of acids, alkalis, oils, greases, salt solutions, fuels and some solvents. A minimum of two applications of sealercoat are essential in order to achieve optimal chemical resistance. For full details visit our website: www.john-lord.co.uk/products/technical-guides.php or consult John Lord Technical Dept.

Curing Time

Floor can go into service after the following minimum cure periods at 18°C and above:

Light traffic:	24 hours
Heavy traffic	48 hours
Full Chemical Cure:	7 days

Shelf Life / 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 12 months.

In-Service Maintenance

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

Suitable cleaning methods for this product include:

- Rotary scrubbing machine and /or warm water washing (up to 60°C) with suitable detergent products – see John Lord Cleaning Guide for further details
- Flash steam cleaning is suitable on an occasional basis

E: enquiries@john-lord.co.uk
W: www.john-lord.co.uk

APPLICATION INFORMATION

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

Suitable Applications

- Wet / Dry Processing areas inc. Food Processing
- Breweries / Dairies
- Dry powder environments
- Engineering and Manufacturing facilities
- Warehousing
- Chemical industry
- Pharmaceutical production facilities
- Effluent tank linings
- Workshops / Machine shops / Plant Rooms
- Printing Industry

Substrate Requirements

Concrete substrates should be a minimum strength of 35N/ Sq.mm, with a minimum cement content of 320 –350kgs per cubic metre. Substrates should have minimum laitance and be free from dust and contamination. Substrates should be free of any unseen defects such as structural instability or intermediate delamination. Tolerances and levels in concrete substrates should be of the standard required of the finished seamless resin finish. Substrates should be dry to 75% RH as per BS8204 or by Vaisala thermo hygrometer type HMI 31. Substrates should incorporate an effective D.P.M and be free from rising dampness, moisture and osmosis. Newly laid substrates must be allowed sufficient 'drying out' time prior to overlaying. The drying time required will depend upon ambient temperatures, humidity and substrate thickness. Epigard ES100 products should NOT be applied to the following substrates: *Asphalt, Unmodified sand cement screeds, PVC tiles or sheet.*

Substrate Preparation

Careful preparation of the substrate is essential. A detailed inspection of the substrate must be undertaken to determine the nature of preparation required eg. mechanical scarifying, diamond grinding, shot blasting, chemical decontamination, hot compressed air treatment. Steel decking should be prepared to S.A 2.5 or similar. For specialist advice on substrate preparation, contact John Lord.

Application Technique

Temperature: Correct temperature is critical to the successful application of Epigard ES100 and air temperatures should be maintained between 18°C and 23°C during the application and curing period of this product. We also strongly recommend that the application area is heated to temperatures of between 18°C and 23°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 15°C minimum temperature for 12 hours prior to application. De-humidifiers must be used where high humidity conditions prevail. Ensure adequate ventilation during application.

Priming: The dry, prepared, dust-free substrate should receive a roller-applied tack coat of Epigard ES100 primer to approximately 0.5kg /sqm, however a thicker coat may be required for more porous substrates. The tack coat should be allowed to begin to tack off before applying the finishing screed.

System: Once mixed, the material should be applied to the tacky substrate and spread to the required thickness using a tamping bar or trowel. The surface should then be closed using a steel float if required.

Sealer coats: The optional gloss Epigard ES100 sealer coat should be roller applied once the finishing screed has cured. An anti-slip sealer system is also available utilising two or three coats of ES100 sealer coat with a hard mineral aggregate broadcast into the first or second coat.

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.

Precautions

Appropriate PPE such as gloves, goggles and barrier cream should be worn during mixing and application of this product. Product should not come into contact with the skin or eyes, or be swallowed. Avoid inhalation.

For full health and safety hazard information, please refer to the John Lord Safety Data Sheet (SDS) for each component of this product. COSHH and SDS documents can be obtained from our Bury Office or via our website www.john-lord.co.uk

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, the suitability of the product for a particular application or requirement beforehand. John L. Lord & Son cannot accept any responsibility of work and the subsequent performance of their systems that are not controlled by their own contracting services.

John L. Lord & Son reserve the right to alter information contained in this document without prior notification, and it is the responsibility of the client or user to obtain the most recent issue.

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