

Episeal S.F.

Description


Two component high build, chemically resistant coating. It is designed to seal, dustproof and protect concrete floors and other surfaces against the ingress of dirt, oil, grease and a variety of chemicals, thus suitable for bunds, tanks & water containment. The low odour and absence of solvent makes Episeal S.F. ideal for use in abattoirs, breweries, bakeries, public areas and food preparation areas, where non-tainting is essential. Episeal S.F. may be used as a sealer for resinous screeds where cleanliness is important or where wet conditions are encountered. Suitable for locations where appearance & hard-wearing finish are important, such as hangars, warehouses and showrooms.

Advantages

- Suitable for use in areas where solvents are undesirable
- Abrasion & chemical resistant
- Easily & quickly applied by untrained operatives
- Dusting eliminated, as well as associated hazards
- Improves hygiene & working environment
- Easily cleaned, hence reducing maintenance costs
- Hardwearing, durable & long lasting
- Suitable for application to walls & floors
- Conforms to EN 1504 Part 2
- Available in Clear or a range of attractive colours, including blue, tile red or light/mid/slate grey

Technical Information

Specific gravity: Clear	1.1
Pigmented	1.2
Wet film thickness: Clear	164 microns
Pigmented	164 microns
Application temperature	5°C to 35°C
Substrate application temperature	5°C to 35°C
Flash point	95°C (203°F)
Solids content	100 %
Pot life @ 20°C	40 minutes
Pot life @ 5°C	In excess of 1.5 hours
Initial hardness	18-24 hours
Full cure	5-7 days
Coverage	4-6 m ² per kilo

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EN 1504-2 Surface protection product Coating	
Chemical Resistance	
Hydrochloric acid	No visual defects
Adhesion - concrete	>1.0 MPa
Dangerous substances	Comply with 5.3

Surface Preparation

The surface to be coated should be dry, sound and free from loose particles. New concrete should be a minimum of 28 days old before application. Vacuum grit blasting or alternative mechanical surface preparation equipment is recommended to achieve a roughened surface.

Concrete should have a direct tensile strength of ≥ 1 MPa. Where the strength or surface stability of the substrate be in doubt, then we recommend a trial area of Episeal S.F. be applied to assess its suitability.

Damaged or worn areas should be made good using a compatible repair mortar such as Nupatch Cosmetic or Epicon FS Mortar.



Technical properties of Episeal S.F.

Properties	Standard	Performance Requirement	Declared Value
Appearance			Clear or Pigmented Resin
Coverage			4-6 m ² / per kg
Usable life			40 minutes
Dry film thickness			164 μm
Full cure			5-7 days
S.G.			1.1 Clear 1.2 Pigmented
Total solids			100 %
Application temperature			5°C to 35°C
Adhesion - concrete	EN 1542	>1.0 MPa	>1.5 MPa
Capillary absorption & permeability to water	EN 1062-3	$W < 0.1 \text{ kg/m}^2 \cdot \text{h}^{0.5}$	$W < 0.1 \text{ kg/m}^2 \cdot \text{h}^{0.5}$
Slip resistance	EN 13036-4		>40 (Class 1)

Technical data shown are statistical results and do not correspond to guaranteed minima.

Tolerances are those described in appropriate performance standards.

1 N/mm² = 1 MPa

1 kN/mm² = 1 GPa

Priming

The fully prepared substrate should be primed using Epiprime and allowed to dry.

Mix only full units of Epiprime. The entire contents of the hardener should be added to the base container and slowly mixed for 1-2 minutes using a variable speed high torque drill and helical stirrer until it is homogenous. Apply by brush or roller at 6-8 m² per kg depending on surface profile & porosity.

Chemical Resistance

Performance of Episeal SF tested by immersion at 20°C against a range of aggressive chemicals.

Acids	
Hydrochloric Acid (conc.)	Fair
Nitric Acid, 25 %	Good
Sulphuric Acid, 50 %	Good
Lactic Acid, 10 %	Good
Acetic Acid, 10 %	Fair
Citric Acid, 20 %	Good
Alkalines	
Sodium Hydroxide, 50 %	Good
Ammonia, 10 %	Good
Hydrocarbon Solvents	
White Spirit	Good
Methylated Spirits	Good
Xylene	Good
Butanol	Good
Oils	
Lubricating Oil	Good
Petrol	Good
Skydrol	Good
Aqueous Solutions	
Sodium Hypochlorite (Bleach)	Good
Sugar Solution (saturated)	Good
Salt Solution (saturated)	Good
Ammonium Sulphate, 10 %	Good

Chemical resistance of Episeal S.F. is dependent on temperature and concentration of the chemical. For further advice, contact Nufins technical department.

Mixing

Mix only full units of Episeal S.F. The base component should be thoroughly pre-stirred to remove any settlement using a variable speed high torque drill and helical stirrer. The entire contents of the hardener should be added to the base container and slowly mixed for 2-3 minutes until homogenous. Care should be taken not to entrain excess air and to prevent any unmixed material remaining on sides and base of the mixing vessel.

Mixed resin can be decanted to roller trays and is then ready for immediate use.

Application Instructions

The mixed Episeal S.F. should be applied to the primed substrate within 24 hours of priming using a brush or roller.

One or two coats are normally recommended. The second coat should be applied within 24 hours of the first and will ensure optimum opacity. Where the Episeal S.F. is to be used in wet work areas a light scatter of kiln dried sand (0.3 - 1mm) can be broadcast at a rate of approximately 3kg/m² into the first coat of resin whilst wet. Once resin has cured, excess sand should be removed by brush or vacuum before over-coating, to produce an anti-slip finish.

Cleaning

Keep all mixing equipment and tools continuously cleaned using Nuwash and avoid product build up.

Packaging

Episeal S.F. is available in 5kg units (4.2 Litre).

Epiprime is available in 2.5kg units (2.3 Litres).

Actual coverage & consumption is dependent on surface profile & porosity.

Aggregates are available in 25kg bags.

Storage

The shelf life is 12 months when stored unopened in dry, normal conditions and away from direct sunlight. Protect from frost. If stored in cold conditions the containers should be warmed prior to use as this will assist mixing and application.

Health & Safety

Product Safety Data Sheets (SDS) are available from Nufins. SDS sheets are provided to help customers satisfy their safe handling, use and disposal needs as well as assist with any conformance requirements made locally by health and safety regulations.

SDS are continually updated to provide the latest information to our customers. We therefore recommend contacting our head office to obtain the most recent and accurate SDS before handling and using any product.

Limitations

Applications should only be made when the temperature is at least 3°C above dew point. Do not apply at temperatures below 5°C or when rain is expected.

For alternative priming options & for applications to new concrete or asphalt, please contact Nufins technical department.

Disclaimer

The information contained herein is to the best of our knowledge true and accurate and is given in good faith but without warranty. The user will be deemed to have satisfied themselves independently as to the suitability of our products for their own particular purpose. In no event shall Nufins be liable for consequential or incidental damages.

Users must always refer to the most recent issue of the Technical Datasheets, copies of which will be supplied on request.

Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors. Technical contacts are available to provide further information and arrange demonstrations.