

BUILDING CHEMICALS SPECIALISTS

UNISHIELD SL

Self-Levelling Floor Topping

Low Viscosity Epoxy Resin

Product Data

Unishield SL Self-levelling Floor Topping is a Solvent Less based Epoxy Resin which is seamless, providing a non-porous finish that is both decorative and easily cleaned. Product is according to **European Standard EN 13813:2002 Screed materials and floor screeds - Screed materials - Properties and Requirements.**

The system is formulated to resist the action of a wide range of chemicals and withstand wear.

Typical Uses

Unishield SL is used for the protection of concrete floors in the food and beverage, industrial and commercial warehouses, garages, power plants and other locations where a heavy duty smooth and cleanable floor topping is required.

Reasons for using Unishield SL

- Wide resistance to chemical and mechanical corrosion.
- Excellent abrasion resistance and durability.
- Provides a smooth easily maintained floor.
- Dustproof and lightfast.
- Excellent adhesion to clean sound surfaces.
- Slip resistant surface possible

Preparation

Surfaces must be free from loose dust, debris and other contaminants. Any oil or grease deposits must be removed by a hot detergent wash with a suitable cleaner available from Frinics Chemicals Ltd.

Any laitance or ingrained oil and grease will require mechanical removal by using grid blasting machine. Dust must be removed by vacuum machine before application of the product. Damage to substrate or incorrect falls should be rectified using suitable screed available from Frinics Chemicals before applying the Unishield system.

Substrates:

Concrete Substrate must be strong, stable and sound with a minimum compressive strength 25N/mm².

For application on previous flooring please contact **Frinics Chemicals** for Technical services for specific advice.

Mixing

Unishield SL epoxy floor topping is supplied in a **two part system**, comprising of a **UNI - Primer and Unishield SL Topping.**

UNI - Primer - Add the **UNI - Primer** hardener unit to the contents of the **UNI - Primer base** container and mix thoroughly. Allow to stand for 5 minutes before application onto prepared concrete.

Topping - The pigmented base must be thoroughly stirred and agitated to disperse sedimentation and achieve consistency of colour. Using a suitable mechanical mixer add the **Unishield SL base** and **Unishield SL hardener** units together, mix thoroughly for 2 min. and then slowly add the **Unishield SL powder**. Mix thoroughly for a further 3 - 5 min. and then allow standing for 5 min. before use.

Application

Due to the expertise required in applying this product only approved applicators are used.

UNI - Primer - Using either a suitable brush or roller or airless spray apply the primer to achieve an even coating of surface area and allow curing overnight.

Unishield SL Topping - Apply the well mixed floor topping to the primer layer using a serrated trowel, followed by multiple wet rolling with a spiked roller to release any entrapped air. Care must be taken not to roll onto partially set areas. The substrate and material temperature should be at least 15°C during application.

Physical Data

Finish: High Gloss
Possible slip resistant surface

Colours: **Base:** Coloured Liquid
Hardener: Transparent Liquid
Finish product: Grey, Red Green Beige, White, Floor Topping

Components: UNI - Primer: 2
Unishield SL Topping: 3

Maximum Operating Temperature: 60°C

Recommended Thickness:

UNI - Primer: 200 microns
Unishield S.L. Topping: 2.0mm (minimum)
2.5mm (standard)

Curing mechanism: Chemical reaction

Curing Time at 20°C:

Light Foot Traffic: 24 hours
Full Cure: 7 days

Pot life at 20°C

UNI - Primer: 30 minutes (approx.)
Unishield SL Topping: 30 minutes (approx.)

Practical coverage

UNI - Primer: 0.25kg/m²
A 5.0kg unit of primer covers approximately 20m².

Unishield SL Topping: 1.6 kg/m² /mm
A 30.0kg unit of screed covers approximately 9.4m² at 2mm thickness.

Equipment Cleaner: Frinics G.P. Solvent

Density: Unishield SL Base: ~1.40 kg/ltr
Unishield SL Hardener: ~1.01 kg/ltr
Unishield SL Finish product: ~1.65 kg/ltr

All Density values at 23°C (EN ISO 2811-1)

Solid Content: ~100% (by volume)
~100% (by weight)

Mechanical Characteristics:

Compressive Strength: 75 N/mm²
(28 days / +23°C) EN 196-1

Flexural Strength: 25 N/mm²
(28 days / +23°C) EN 196 – 1

Impact Resistance: IR4

Bond Strength: 2.0 N/mm² (EN 4624)
4.2 N/mm² (EN 13892-8)

Shore D Hardness: 80 (7 days/+23°C) DIN 53 505

Abrasion Resistance: 70 mg
(8 days /+ 23°C) DIN 53 109

Material is non Flammable

Pack sizes:

UNI - Primer Base: 3.75 kg in 5 ltr tin
UNI - Primer Hardener: 1.25 kg in 3 ltr tins

Unishield SL Pigmented Base: 6.66 kg in 10 ltr tins
Unishield SL Hardener: 3.33 kg in 5 ltr tins
Unishield SL Powder: 20 kg in paper bags

Shelf life:

UNI - Primer Component: 12 months in unopened contain.

Unishield SL Topping Base & Harden.

12 months in unopened container
Unishield SL Powder: 24 months in unopened bag

Protect from extreme temperatures and keep dry during shipment and storage. Discard damaged or open containers

Limitations

All Frinics products are manufactured to a high standard of quality. They are sold subject to Frinics Conditions of Contract or Sale - copy available upon request. Whilst Frinics strives to ensure that any advice, information or recommendations given are appropriate and correct, it cannot, since it does not have complete control over the method and place of application of the products, accept any liability directly arising out of the use of products.

Health and Safety at Work

Warning and information concerning the safe handling and use of our products are displayed on their containers and in a Health and Safety data sheet. It is the Purchaser's responsibility to ensure that the materials are stored and handled safely.

Safety Precautions

Read each component's Material Safety Data Sheet before use. Mixed material has hazards of each component. Safety Precautions included with Application Instructions must be strictly followed during storage, handling and use. Improper use and handling of this product can be hazardous to health and cause fire or explosion.

Safety Equipment Required

Suitable eye protection and clothing must be worn this preparation.

Normal precautions should be taken during application to provide adequate ventilation, particularly when working in enclosed spaces.

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