

BUILDING CHEMICALS SPECIALISTS

UNIFLOR

Solvent Free Epoxy Screed

Product Data

Uniflor Solvent Free Epoxy Screed is a corrosion resistant flooring system, specifically formulated to withstand wear and the action of a wide range of chemicals. Product is according to **European Standard EN 13813:2002 Screed materials and floor screeds - Screed materials - Properties and Requirements.**

The screed is trowel applied and cures by chemical reaction using solvent free resins and offers a slip resistant texture even in wet conditions. The flooring is formulated to withstand chemicals such as common inorganic acids, alkalies, salt solutions, mineral and animal oils, fats and greases and many solvents.

However, it is not recommended for use with oxidizing acids or organic acids over 2 per cent concentration. For advice on resistance to specific chemicals, please contact Frinics Technical Services department.

Typical Uses

Uniflor's exceptional durability and long life characteristics make it suitable for use in a wide variety of industrial applications.

- As a corrosion resistant floor in food processing, brewing, chemical and heavy engineering industries.
- In areas subject to chemical spillage and regular heavy wheeled traffic.

Reasons for using Uniflor

- Ideal for food, and beverage factories.
- Wide resistance to chemical and mechanical corrosion.
- Solvent free epoxy screed.
- Hardwearing and abrasion resistant.
- Excellent adhesion to clean, sound surfaces.
- Easy to apply, even to damp surfaces.
- Slip resistant, even in wet conditions.
- Can be applied to vertical surfaces as skirting.

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 such as Uniclean, available from Frinics. 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 Unibond screed before applying the Uniflor system.

Substrates:

Uniflor is not suitable for application to standard sand/cement screeds. Concrete Substrate must be strong, stable and sound with a minimum compressive strength 25N/mm².

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

All movement joints in the base screed must be duplicated in the **Uniflor**. This includes their incorporation around perimeters, up stands and permanent obstructions in the floor.

Mixing

Uniflor solvent free epoxy screed is supplied in a **three part system**, comprising of a **UNI - Primer, Uniflor Screed** and **Uniflor Sealer** layer.

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

Uniflor Screed - Thoroughly mix the unit of **Uniflor Base** with a slow speed electric drill to re-disperse colour pigment. When dispersion has been achieved add one unit of **Uniflor Hardener** and again mix with a slow speed electric drill. When complete mixing of the Base and Hardener has been achieved pour the resultant mix into a mechanical mixer (Rotary Drum/Static Blade) add the **Uniflor** Screed Powder and mix for approximately 3-5 minutes.

Uniflor Sealer - Thoroughly mix one unit of **Uniflor Sealer base** with one unit of **Uniflor Sealer hardener**, using a slow speed electric drill and suitable paddle.

Application

Due to the expertise required in applying this product only approved applicators are used. The **UNI - Primer** layer can be applied by suitable brush or roller or airless spray, the **Uniflor screed** by trowel and **Uniflor Sealer** by trowel or squeegee.

UNI - Primer - Apply using either a suitable brush or roller or airless spray to achieve an even coating of the surface area. It is recommended that the screed be applied immediately after the primer layer and in any case within 4 to 5 hours, otherwise repriming will be necessary. In this event the primer must be abraded prior to reapplication of another primer coat.

Uniflor Screed - Use 5mm battens to gauge thickness and apply the well mixed screed to the tacky primer, spreading evenly using metal rakes. Level off with an aluminium straight edge and finish with a trowel float. It is essential that the screed be compressed by the trowel to produce a well compacted screed. **AVOID OVER TROWELLING.**

Uniflor Sealer - After the **Uniflor** screed has initially set it is necessary to apply a coat of **Uniflor Sealer**. Apply the mixed material to an uncontaminated screed using a trowel or rubber squeegee and work well into the surface, thus filling all voids. Any excess sealer must then be removed with a white rubber squeegee. The finished surface must have the minimum thickness of sealer attainable.

Physical Data

Finish: Sealed Slip resistant textured

Colours: **Uniflor Base:** Coloured Liquid
Uniflor Hardener: Dark Brown Liquid
Uniflor Finish product: Grey, Red, Screed.

All colours have an attractive flecked appearance due to the inclusion of multi-coloured aggregates.

Components: **UNI - Primer:** 2
Uniflor Screed: 3
Uniflor Sealer: 2

Maximum Operating Temperature: 60°C

Recommended Thickness:

UNI - Primer: 200 microns
Uniflor Screed: 5mm nominal

Curing mechanism: Chemical reaction

Curing Time at 20°C:

Light Foot Traffic: 12 hours
Steel Wheeled Traffic: 5 days
Full Chem. Resist: 7 days

Pot life at 20°C

UNI - Primer: 30 minutes (approx.)
Uniflor Screed: 30 minutes (approx.)
Uniflor Sealer: 60 minutes (approx.)

Practical coverage

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

Uniflor Screed: 11.0.kg/m² for 5mm thickness
A 40.0kg unit of screed covers approximately 3.6m² at 5mm thickness.

Uniflor Sealer: 0.20/m²
A 5.0kg unit of **Uniflor Sealer** covers approximately 25m².
An allowance should be made for surface irregularities and application losses.

Equipment Cleaner: Frinics G.P. Solvent

Density: **Base:** ~1.14 kg/ltr
Hardener: ~1.09 kg/ltr
Finish product: ~2.20 kg/ltr

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

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

Mechanical Characteristics:

Compressive Strength: 55 N/mm²
(28 days at 23°C) EN196-1

Flexural strength: 20 N/mm²
(28 days at 23°C) EN 196- 1

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

Shore D Hardness: 80 (7 days at 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: 3.17 kg in 5 litre tin
UNI - Primer hardener: 1.83 kg in 3 litre tin
Uniflor Screed base: 2.62 kg in 5 litre tin
Uniflor Screed hardener: 2.38 kg in 3 litre tin
Uniflor Screed powder: 35.0 kg in paper sack
Uniflor Sealer base: 3.75 kg in 5 litre tin
Uniflor Sealer hardener: 1.25 kg in 3 litre tin

Shelf life:

UNI - Primer Components: 12 months in unopened contain.
Uniflor Base & Hardener: 12 months in unopened contain.
Uniflor Powder: 24 months in unopened contain.
Uniflor Sealer Components: 12 months in unopened contain.

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

Warnings and information concerning the safe handling of our products are displayed on their containers. 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

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

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