

Epigrip

Epoxy High Friction Surfacing & Safety Flooring System

Description

A two component, high build, resin extended epoxy body coat characterised by its inbuilt flexibility, with excellent adhesion and resistance to water and a wide range of chemicals. Broadcasting slip resistant aggregate onto the surface of the wet Epigrip resin creates a highly durable, heavy duty safety flooring system, which will last for many years in both internal and external situations.

Advantages


- Low odour makes it ideal for enclosed locations
- No primer required
- Suitable for steel, concrete, timber & asphalt
- Excellent bond strength
- Inbuilt flexibility
- Good chemical & abrasion resistance
- Conforms to EN 1504 Part 2

Applications

- Upgrades warehouse floors to industrial grade, suitable for vehicular & forklift traffic
- Mezzanine/podium decks, foot bridges, walkways & balconies
- Carpark ramps & off-highway vehicular bridges

Technical Information

| | |
|--------------------------|---|
| Colour | Black |
| Mixing ratio | Only full packs |
| Pot life @ 20°C | 40 minutes |
| Pot life @ 7°C | 2 hours + |
| Foot traffic | Min 4 hours @ 20°C |
| Light traffic | Min 12 hours @ 20°C |
| Full traffic | Min 16 hours @ 20°C |
| S.G. @ 20°C | 1.43 |
| Minimum application temp | 7°C |
| Coverage (approx.) | 4m ² @ 1mm per 5kg unit (not including aggregate) |

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| Nufins, Kingston House, 3 Walton Road, Pattinson North, District 15, Washington, Tyne & Wear. NE38 8QA 23 0086-CPR-774186 | |
| EN 1504-2 Surface protection system Coating | |
| Abrasion resistance | ≤3000 mg |
| Capillary absorption and permeability to water | <0.1 kg/m ² .h ^{0.5} |
| Adhesive bond strength | ≥ 1.5 MPa |
| Dangerous substances | Complies with 5.4 |

Surface Preparation

Preparation shall be such as to leave dry, clean, sound exposed surfaces, free from chemical contamination, oil, grease, gum, dirt, loose particles, debris and dust.

For high frequency, heavily trafficked surfaces and other critical applications e.g. carparks and other decks, then we recommend undertaking pull-off adhesion testing.

If necessary, imperfections in concrete surfaces should be made good with system compatible materials such as Nupatch Cosmetic or Epicon FS Mortar (refer to separate TDS).



Technical properties of Epigrip

| Properties | Standard | Performance Requirements | Declared Value |
|--|---------------|--|--|
| Appearance | | | Black Resin |
| Chloride-ion content | EN 1015-17 | ≤0.05 % | ≤0.05 % |
| Layer thickness minimum | | | 1 mm |
| Specific gravity | | | 1.43 |
| Working time | | | 40 minutes |
| Temperature for application | | | 7°C to 30°C |
| Tensile strength | BS 6319-7 | | 3.3 MPa |
| Adhesion - concrete | EN 1542 | ≥1.5 MPa | >2.0 MPa |
| Adhesion - steel | EN 1542 | ≥1.5 MPa | 5.75 MPa |
| Adhesion after freeze/thaw (50 cycles with salt) | EN 13687-1 | ≥1.5 MPa | >2.0 MPa |
| Adhesion after thunder showers (30 cycles) | EN 13687-2 | ≥1.5 MPa | >2.0 MPa |
| Adhesion after dry cycling (30 cycles) | EN 13687-4 | ≥1.5 MPa | >2.0 MPa |
| Abrasion resistance | EN ISO 5470-1 | ≤3000 mg | <3000 mg |
| Carbonation resistance | EN 13295 | $d_k \leq \text{ref. concrete}$ | Passes |
| Capillary absorption | EN 1062-3 | $<0.1 \text{ kg/m}^2 \cdot \text{h}^{0.5}$ | $<0.1 \text{ kg/m}^2 \cdot \text{h}^{0.5}$ |
| Slip resistance | EN 13036-4 | | Class 3 |

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

Tolerances are those described in appropriate performance standards.

All testing was conducted at 23°C under laboratory conditions, unless otherwise stated.

1 N/mm² = 1 MPa

1 kN/mm² = 1 GPa

Surface Preparation (continued)

Concrete;

Surfaces should be free from laitance, which should be removed by scarifying, wire brushing or preferably by grit blasting. Precautions must be taken to prevent concrete from absorbing excess moisture. The concrete substrate should not contain moisture >75% RH (relative humidity). This can be assessed using a hair hygrometer covered with polythene for 24 hours, as recommended by BS8203.

Asphalt;

The condition and strength of all asphalt surfaces shall be clean, dry, sound and stable. We recommend that new asphalt should be aged for 28 days. As a minimum, all surfaces should be vigorously and thoroughly brushed, prior to the application of resin. For critical applications, grit-blasting is recommended.

Steel;

All surfaces should be dry, free from loose scale and rust prior to the application of resin. The preferred method of removal is by grit blasting to Swedish Standard SA2.5. Galvanised steel should be treated with Mordant Solution and all residues removed before priming.

Timber;

All surfaces will benefit from light abrasion and smooth surfaces must be roughened.

Priming

Concrete & Asphalt;

Priming is not normally required, however when applying to damp or new concrete less than 21 days old, the use of Epicon DSP is recommended. (Refer to separate TDS).

Steel & Timber;

Apply a coat of Epicon DSP ensuring it is evenly spread without leaving pinholes. (Refer to separate TDS).

Following on to the Epicon DSP, Epigrip should be applied after approximately 12 to 24 hours (depending on temperature), whilst the surface remains tacky.

Mixing

Only mix full units of Epigrip. The entire contents of the hardener should be added to the base container and slowly mixed using a variable speed high torque drill and helical stirrer for 2-3 minutes until homogenous. Care should be taken not to entrain excess air and prevent unmixed material remaining on sides and the base of the mixing vessel. Mixed resin is ready for immediate use.

Application Instructions

Waterproof Layer;

Where resin is to be used simply as a waterproofing membrane it should be applied by brush or squeegee at a nominal thickness of 1mm to 2mm, depending on surface rugosity.

If a waterproof layer is included as part of the installation, this should be allowed to cure before following on with the body coat layer. Ideally, allow the layer to harden sufficiently to walk on without damaging it. Indicative overcoat times as follows; Summer; 24 hours Winter; 24 - 48 hours

Body Coat Layer;

Install Epigrip by poured-application onto the prepared deck/floor surfaces then spread using a float or squeegee, ensuring that all areas receive a liberal coating of 1mm to 2mm. Actual coverage will depend on surface rugosity and should achieve the minimum required cover over high points in the surface profile. Back-roll using a spike roller to ensure even coverage and to provide a level surface.

Whilst Epigrip remains wet, broadcast into the surface, a suitably sized kiln dried aggregate, applied in such a manner to fully blind the resin. Should the resin lose its tackiness then a further coat should be applied as described above.

Aggregate spread rate for full blinding is approximately 5kg/m²

After the resin has sufficiently hardened, any loose and surplus anti-slip aggregate where used, should be removed by suitable equipment, vacuum or brush, before applying a sealer coat.

Coverage Guide; 4m² @ 1mm, or 2m² @ 2mm, per Epigrip 5kg

Sealer Coat

An optional sealer coat can be applied to encapsulate aggregate, once Epigrip has sufficiently hardened and aggregate removed. Episeal SF, Tredseal Finish or Nucoat UVS may be used and this will extend durability and longevity. (See separate TDS for these).

Indicative overcoat times as follows;

Summer; 24 hours Winter; 24 - 48 hours

Cleaning

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

Packaging

Epigrip is available in 5kg units. Larger units available on request.

Dried Aggregate (**supplied separately**) in 25kg bags;

Bauxite aggregate is available 0.4 - 1.5mm & 1 - 3mm nominal.

Quartz aggregate available 0.3 to 2mm nominal.

Epicon DSP is available in 5kg & 25kg units.

Nupatch Cosmetic is available in 7.5kg & 25kg tubs.

Epicon FS Mortar is available in 5kg & 25kg units.

Tredseal Finish or Nucoat UVS are available in 5kg & 25kg units.

Nuwash is available in 5 & 20 litre drums.

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, containers should be warmed prior to mixing. This will greatly assist mixing and application procedures.

Limitations

For external application, do not install when rain is expected as it may cause softening and discolouration of the surface.

Do not apply at temperatures below 7°C, as application below this can cause poor bond to the substrate. Please consult with Nufins technical department for further advice.

Epigrip can be applied to non-oily type timber but we recommend discussing the application with our Technical Department before approval.

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.

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.