

Solvent-free, self smoothing epoxy floor topping

About this product

hd. Durakote SL is a self smoothing seamless epoxy resin floor finish. It can be applied on to most surfaces to provide a waterproof, dustproof and hardwearing surface with excellent chemical resistance. It is supplied as a three component pack which when mixed can be spread to a thickness of 2 - 3mm. By adding additional filler a maximum thickness of 5mm can be achieved. For a non-slip finish carborundum or other non-slip aggregate can be sprinkled into the surface.

Uses

- A smooth industrial floor finish where hygienic or chemical resistance is required.
- Laboratories and hospitals.
- Pharmaceutical, drinks, or food industries.
- Electronics factories.
- Storage or warehousing facilities.
- Workshops and loading bays.
- Exhibition halls and sports centres.

Features and benefits

- Hardwearing, chemical resistant finish.
- Produces smooth, attractive finish.
- Easily maintained, hygienic surface.
- Non-slip finish can be achieved.
- Easy to mix and apply.
- Attractive seamless appearance.

Chemical resistance

hd. Durakote SL has excellent resistance to attack from most organic and inorganic substances.

Samples of hd. Durakote SL were cured for 14 days at 28°C prior to total immersion in the test media for 28 days at 20°C.

Test media	Chemical resistance
Tap water	Very good
Sodium Hydroxide 50%	Very good
Ammonia (10%)	Very good
Sodium Hypochlorite (12% active Chlorine)	Very good
Hydrochloric Acid 50%	Very good
Sulphuric Acid 10%	Very good
Chromic Acid 10%	Very good (discolouration)
Nitric Acid 15%	Very good
Formic Acid 5%	Good
Acetic Acid 5%	Good
Lactic Acid 5%	Good
Acetone	Poor
High Octane Gasoline	Very good
Skydrol 500B	Very good
Teepol 10%	Very good
Perchloroethylene	Very good
Xylene	Very good

For specific information please contact our Technical Department.

Typical properties

All tests carried out at 20°C.

Compressive strength (BS6319: Part 2)	75 N/mm ²
Tensile strength (BS6319: Part 7)	17 N/mm ²
Flexural strength (BS6319: Part 3)	35 N/mm ²
Co-efficient of expansion	25 X 10 ⁻⁶ per °C
Flexural modulus	7 kN/mm ²
Shore hardness D at 20°C at 7 days	86
Heat distortion temperature	45°C

Surface preparation

hd. Durakote SL should only be applied to clean dry, sound substrates which have been prepared in accordance with these instructions.

Concrete surfaces

New concrete should be at least 21 days old. The substrate should have a minimum compressive strength of 25 N/mm² and after preparation have a pull off strength no less than 1.0 N/mm². Moisture content must not exceed 6% when tested with a Protimeter or have a relative humidity at the slab surface above 75% when tested by hygrometer. All laitance, curing membranes or other coatings must be removed.

Old concrete should be cleaned to a sound, dry surface. Concrete surfaces contaminated with oil or grease require special preparation. Care must be taken to ensure that the oil or grease is removed from the surface and not simply spread over a larger area.

Note: hd. Durakote SL is a thin layer application and is not suitable for very rough and uneven concrete surfaces. Use Epoxy Plus Flooring Easilay or Mulsifix Repair Mortar for repairs to substrates and bringing up to required levels.

hd. Durakote SL

Application

Priming coat

Once prepared, surfaces should be primed with one coat of Epoxy Plus Tack Coat which should be allowed to cure for a minimum of 10 hours before receiving the hd. Durakote SL, or until primer has gone hard. hd. Durakote SL must be applied within 24 hours (and sooner in hot weather). The object of the primer is to totally seal the concrete surface to avoid the entrapment of air in the self-levelling coat.

The effective workable time of the Epoxy Plus Tack Coat is comparatively short when left in the mixing vessel, i.e. 22 minutes at 20°C. This life can be extended by pouring the mixed primer into a shallow tray to dissipate the heat generated during cure.

Mixing

hd. Durakote SL is a three component material and comprises two liquid components, a resin and a hardener plus a sand filler. The liquids are of a dissimilar consistency and must be mixed thoroughly to an even consistency and colour before adding the filler. Ideally, use a heavy duty electric drill with a large mixing paddle at a maximum of 450 rpm. Mixing should be carried out for several minutes until it is certain that all the hardener component has been thoroughly mixed in with the thicker resin component prior to adding the filler. Use the mixed material as soon as possible, ideally within 15 minutes.

Laying

Laying is best carried out between 15°C and 25°C. Pour the mixed hd. Durakote SL onto the dry, cured, primed surface and spread out to a thickness of 2 - 3 mm with a serrated floor trowel. A few minutes after laying, use a spiked roller to remove entrapped air. When temperatures are between 10°C and 15°C it may be necessary to spike the surface twice, the second time after about 20 minutes. This can be carried out wearing spiked shoes to walk on the wet hd. Durakote SL.

hd. Durakote SL can be laid to falls up to 1 in 20 at 3mm thick. Always lay to a fresh wet edge.

For non-slip surfaces broadcast the surface with 2 - 3mm carborundum grit or other non-slip aggregate. This must be applied whilst the hd. Durakote SL is still wet and within 30 minutes of laying. the aggregate should be broadcast in small quantities at a time until the required texture is achieved. The wet hd. Durakote SL can be walked on with spiked shoes for this purpose.

Clean tools, with suitable solvent before material sets.

Curing

The curing period is dependent on ambient and surface temperatures and the table below is a guide only to the service time from placement of the material.

Constant temperatures	20°C	15°C	10°C
Foot traffic	20 hours	28 hours	40 hours
Full service	7 days	14 days	22 days

Precaution

Do not lay the hd. Durakote SL when air and substrate temperature is below 10°C.

Do not apply artificial heat until the hd. Durakote SL has set hard. Our Technical Service Department can provide further information.

Do not use on ground concrete floors not having an efficient damp proof membrane.

Packaging and coverage

Epoxy Plus Tack Coat is supplied in 1, 5 and 25 litres pack. Coverage is 4 to 6m² per litre.

hd. Durakote SL is supplied in 20kg pack. The yield is approximately 11litres. Coverage is approximately 3.6m² at 3mm per pack to 5.5m² at 2mm per pack.

Colours

hd. Durakote SL is available in grey, red and green. Other colours will be produced on request for large orders, contact our sales department for further information.

Storage

Shelf life of unopened containers is a minimum of 12 months when correctly stored in dry conditions at a temperature of between 5°C and 25°C.

Health and safety

Keep containers closed when not in use. Operatives are advised to use barrier creams and wear protective clothing including gloves and goggles or glasses. Any contact with skin should be cleaned with proprietary cleansing cream. If product enters the eye wash with copious amounts of clean water. Seek medical advice if discomfort continues. Only mix and use in well ventilated areas. In the event of fire use foam, dry chemical or carbon dioxide (CO₂) extinguishers. Flash point is in excess of 100°C.

Technical service and representation

We can provide technical service at the specification stage and/or during application through our Technical Department or Laboratory. Detail specification or further information can be provided for specific projects or more general works. Site visits and on-site demonstrations can be arranged on request.

To the best of our knowledge and belief, the information contained in this leaflet is true and accurate, but as conditions of use and any labour involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors. Test results shown reflect typical figures based on laboratory testing under