

Technical Datasheet

Tredseal Primer



MMA Adhesion Promoter for Tredseal High Friction Surfacing

Description

A low viscosity cold-curing one component methyl methacrylate resin primer, characterised by its rapid cure.

Advantages

- Rapid curing
- Suitable for concrete, steel & asphalt substrates
- Penetrates of porous surfaces & improves surface strength
- Outstanding bond to concrete, asphalt & sand blasted steel

Technical information

Appearance		Clear liquid
Viscosity	DIN 53018	50-90 centipoise
Outflow time	DIN ISO 2431	50-70 s/4 mm
Density	DIN 51757	1.0 g/cm ³
Flash point	DIN 51755	11.5°C
Usable life		20-30 mins
Overcoating		60-90 mins

Surface Preparation

Preparation shall be such as to leave dry, clean, sound exposed surfaces, free from ice/frost, concrete shutter release and curing compounds, moss/algae, chemical contamination, oil, grease, gum, dirt, friable matter, loose particles, debris and dust. The use of vacuum grit blasting to prepare the surface is recommended.

For high frequency, heavily trafficked surfaces and other critical applications e.g. car parks and other decks, then we recommend undertaking pull-off adhesion testing. Should the strength or the surface stability of a substrate be in doubt, then we recommend a trial patch of Tredseal Primer be applied to assess its suitability.

Imperfections in concrete surfaces should be made good using compatible materials such as Nupatch Cosmetic for minor defects or Epicon FS Mortar for small and large defects (refer to separate TDS).

Surface Preparation (continued)

Concrete;

Surfaces should be free from laitance, which should be removed by scarifying, wire brushing or preferably by grit blasting, to provide a sound substrate with an adhesion pull-off strength of at least 1.5MPa.

New concrete decks should be more than 28 days old and have a U4 finish as a minimum, in accordance with specification for Highway Works Volume 1 Clause 1708.4.

Precautions must be taken to prevent concrete from absorbing excess moisture. Concrete substrates should not contain moisture >6% and should be assessed on site with a moisture meter, specifically designed to measure moisture in concrete, before application.

Steel;

All surfaces should be dry, free from loose scale and rust prior to the application. 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.

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 any critical applications, grit-blasting is recommended. Do not apply Tredseal Primer onto asphalt. Priming of well consolidated asphalt should be undertaken with an epoxy primer, such as Epiprime (see separate TDS), with a scatter of fine kiln-dried sand into the wet resin at approx. 1kg/m².

Mastic-Asphalt;

Overcoating not recommended for surfacing during first year, due to oily volatile bleed. Contact our technical department for further recommendations and treatment.

Mixing

The quantity of BPO catalyst powder added to Tredseal Primer resin can be adjusted according to the ambient temperature; the amount added is calculated as a percentage of the weight of Tredseal Primer resin. See table on the following page for BPO additions.



Mixing (continued)

NOTE: Once mixed together, resin and BPO catalyst powder have a short pot life and will react vigorously in bulk to produce a high exotherm.

BPO Additions as follows:

Temp	BPO Addition % approx	BPO 23kg resin	BPO 10kg resin	Setting Time approx
0°C	6%	1.38 kg	0.6 kg	30 minutes
5°C	5%	1.15 kg	0.5 kg	30 minutes
10°C	4%	0.92 kg	0.4 kg	30 minutes
20°C	2%	0.46 kg	0.2 kg	25 minutes
30°C	1%	0.23 kg	0.1 kg	20 minutes

Add the required quantity of BPO to the drum of resin and mix thoroughly, for 2-3 minutes using a variable speed high torque drill and helical paddle. Care must be taken not to entrain excess air and to prevent unmixed material remaining on the sides and base of the mixing vessel.

Mixed resin is ready for immediate use.

Application Instructions

Working quickly, apply the mixed primer immediately by brush or medium nap roller or airless spray at 0.2-0.4kg/m². Actual coverage will depend on surface rugosity and porosity of the deck. Ensure that surfaces are completely coated, without leaving pinholes, and so that a suitable cured film is achieved.

Ponding of primer shall be avoided and surplus primer shall be removed or evenly dispersed by brushing or rolling.

One application of primer is normally sufficient which should give a sheen finish to the concrete. However, on very porous concrete a second coat may be required. The primer shall be fully cured, clean and free from loose debris, moisture and any other contaminants before application of Tredseal Bodycoat.

If there will be an interval of more than 8 hours between priming and application of Tredseal Bodycoat, it is recommended to scatter 0.2-0.7mm kiln dried sand at approx. 2kg/m² into the primer resin before it hardens.

Should there be surface irregularities over large areas, a slurry coat made from a blend of Tredseal Primer and graded sands may be employed. Contact Nufins technical department for further advice.

Application Instructions (continued)

Curing time of the primer will depend upon amount of BPO catalyst used, temperature and site conditions, typically 30 – 60 minutes. Primer will accept pedestrian access once it is cured. Where necessary it will accept vehicular traffic with rubber tyres thereafter within one hour. However, to prevent unnecessary contamination or damage, vehicular traffic should be avoided.

Cleaning

Keep all mixing equipment and tools continuously cleaned throughout the day using **Acetone** and avoid product build up.

Overcoating

The primed surface is ready for Tredseal Bodycoat to follow on. See separate TDS.

Packaging

Tredseal Primer is available in 10kg & 23kg drums

BPO catalyst powder is available in 5kg & 25kg units

Both above parts are required.

Acetone is available in 5 & 20 litre drums

Storage

Tredseal Primer is flammable. Due precaution should be taken when handling and storing this material.

Shelf life is 12 months for resin and 6 months for BPO when stored unopened in dry, normal conditions and away from direct sunlight. Protect from frost.

Health and 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 very 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 may be made from 0 - 35°C. Substrate temperatures should be 3°C above the dew point.

For applications undertaken in temperature below 5°C, materials should be stored and conditioned at 15°C and the maximum BPO catalyst addition be used for 5°C (see above table).

In temperatures below 5°C it may be necessary to assist curing by the use of tenting and warm air blowers, in situations where this is possible. For situations with larger or long extended areas, and for further advice, contact Nufins technical department.

BPO catalyst additions should be adjusted in line with temperature, in accordance with the table above.

Asphalt substrates must be aged or conditioned prior to use and application; prime with an epoxy bond coat, mentioned above.

If used, remove masking tape before resin hardens.

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.