

Tredseal Bodycoat

MMA High Friction Surfacing & Waterproofing Body Coat

Description

A versatile one component methyl methacrylate body coat element of the Tredseal system, along with primer & sealer coat, designed to provide a decorative, tough, wear resistant and waterproof topping for concrete, steel and asphalt. The rapid curing of the Tredseal system enables areas to be brought back into commission quickly. Broadcasting slip resistant aggregate onto the wet Tredseal Bodycoat resin creates a highly durable anti-slip surface. The system has been formulated to comply with the requirements of EN 1504 Part 2.

Advantages

- Installation even at very low temperatures
- Excellent adhesion properties
- Used for waterproof & body coat layers
- Tough, hard wearing & abrasion resistant
- Provides an instant decorative finish
- Ultra rapid set; can be trafficked in two hours

Applications

- Mezzanine/podium decks, foot bridges, walkways & balconies
- Carparks, ramps, off-highway vehicular bridges
- Rail platforms, ports, chemical plants & warehouses
- Laboratories, hospitals, service yards & sports stadia

Technical information

Appearance	Filled pigmented resin
Usable life	20-30 minutes
Over coating time	45-75 minutes
Trafficking time	2 hours
Elongation	>25 %
Adhesion to concrete & asphalt	>2.0 MPa Greater than substrate
Adhesion to steel	>8 MPa
Flash Point DIN 51755	10°C

Note: Usable life & hardening times will vary with temperature.

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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	
Permeability to water vapour	Class II
Capillary absorption & permeability to water	<0.1 kg/m ² .h ^{0.5}
Adhesion	≥1.5 MPa
Dangerous substances	Complies with 5.3

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. carparks and other decks, then we recommend undertaking pull-off adhesion testing.

Imperfections in concrete surfaces should be made good using compatible materials; Nupatch Cosmetic or Epicon FS Mortar (refer to separate TDS).

The technical datasheet for Tredseal Primer contains full instruction for surface preparation and application.



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. 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.

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. Grit-blasting is recommended for critical applications.

Mastic-Asphalt;

Overcoating not recommended for surfacing during first year, due to oily volatile bleed.

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.

Priming

See Tredseal Primer technical datasheet for full preparation, mixing and application instructions.

Apply mixed primer by brush, medium nap roller or airless spray at 0.2-0.4kg/m², depending on the 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 excess primer shall be removed or evenly dispersed by brushing or rolling. One application of primer is normally sufficient. Primer should be fully cured, clean and free from loose debris, moisture and other contaminants before applying of body coat.

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 before it hardens.

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

Mixing

The quantity of BPO catalyst powder added to Tredseal Bodycoat resin can be adjusted according to the ambient temperature. See table below for BPO additions to 25kg drums.

Temperature (°C)	Weight of BPO (g)	Usable Life (minutes)	Traffic Time (hours)
5	200	80	4
5	300	51	3.5
5	400	40	3
5	500	33	2.5
5-10	400	40	3
10-15	300	35	2.5
15-20	300	30	2.5
20-25	200	20-30	2
25-30	200	20	2
30-35	150	15	1.5

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 for Tredseal Bodycoat

Conditioning Layer;

A single sized kiln dried aggregate can be added and blended with the Tredseal Bodycoat to produce a Scratch Coat/Mortar for rough substrates. Proportions should be mixed in the ratio of 3:1 to 5:1 aggregate to resin by weight, depending on requirements.

Waterproof Layer;

Where resin is to be used 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; 45 – 75 minutes
 Winter; 60 – 90 minutes

Application Instructions for Tredseal Bodycoat (continued)

Body Coat Layer;

Mixed Tredseal Bodycoat should be used immediately by poured application onto the prepared and primed deck/floor surface then spread using a float or squeegee, ensuring that all areas receive a liberal coating of between 0.5mm to 2.5mm, layered to the design thickness, as required. The 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 nylon spike roller to ensure even coverage and to provide a level surface.

Whilst Tredseal Bodycoat 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.

For pedestrian areas use 0.3mm - 1.5mm grit and for vehicular trafficked areas use 1mm - 3mm grit.

Coverage Guide

Waterproof Layer	
@ 1mm Tredseal Bodycoat	1.8kg per m ²
Body Coat Layer Tredseal Bodycoat	
@ 1.5mm for 0.3 - 1.2mm aggregate	2.7kg/m ²
@ 2mm for 1.2 - 2mm aggregate	3.6kg/m ²
@ 2.5mm for 1 - 3mm aggregate	4.5kg/m ²
@ 3mm for 1 - 3mm aggregate	5.4kg/m ²

Sealer Coat

See the Tredseal Finish technical datasheet for full mixing and application instructions.

Once Tredseal Bodycoat resin has sufficiently hardened, any loose and surplus aggregate, should be removed by vacuum or brush, before applying sealer coat.

Tredseal Finish is available in clear or a range of colours and is an integral component of the Tredseal system. It optimises service life, improves abrasion resistance and provides a decorative and functional finish to the system.

Apply mixed sealer coat by brush or medium nap roller to the dry aggregate. Indicative overcoat times as follows; Summer; 45 - 75 minutes Winter; 60 - 90 minutes

Cleaning

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

Packaging

Tredseal Bodycoat is available in 25kg drums

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

Both above parts are required.

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.

Tredseal Primer is available in 5kg and 23kg drums (excl BPO)

Tredseal Finish is available in 5kg and 25kg drums (excl BPO)

Acetone is available in 5 & 20 litre drums

Storage

Tredseal Bodycoat is flammable. All due precautions 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.

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.