

Uradeck BC

Polyurethane High Friction Surfacing & Waterproofing Body Coat

Description

A versatile two component polyurethane body coat characterised by its inbuilt flexibility, even at low temperatures. Uradeck BC provides excellent adhesion to a variety of substrates including concrete, steel and asphalt. Broadcasting slip resistant aggregate onto the surface of the wet resin creates a highly durable anti-slip system. The system has been formulated to comply with the requirements of EN 1504 Part 2.

Advantages


- Inbuilt flexibility
- Excellent adhesion properties
- Used for waterproof & body coat layers
- Good chemical & abrasion/wear resistance
- Excellent weathering characteristics
- Provides an instant decorative finish
- Fast curing for early trafficking

Applications

- Numerous commercial, industrial & leisure applications
- Waterproof coating for silos, tanks, bunds & culverts
- 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	Pigmented resin
Pot life @ 20°C	10-65 minutes
Pot life @ 5°C	20-120 minutes
Fast-Setting Grade, pot life @ 5°C	10-20 minutes
Trafficable time	2 hours
Full cure	7 days
Application temperature	1°C to 30°C
Coverage	5 kg = 4.2 m ² @ 1 mm 25 kg = 21 m ² @ 1 mm

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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 I
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 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 materials compatible with the system; *Nupatch Cosmetic* or *Epicon FS Mortar* (refer to separate TDS).

Refer to the *Epicon DSP* technical datasheet for further instruction on surface preparation.



Technical properties of Uradeck BC

Properties	Standard	Performance Requirements	Declared Value
Appearance			Pigmented resin
Solids content			100 %
Specific gravity			1.2
Viscosity			2100 centipoise
Working life			10-65 minutes
Minimum film thickness			0.5 mm
Permeability to water vapour	EN ISO 7783-1	$S_d < 5 \text{ m}$	$S_d < 5 \text{ m}$ (Class I)
Capillary absorption & permeability to water	EN 1062-3	$< 0.1 \text{ kg/m}^2 \cdot \text{h}^{0.5}$	$< 0.01 \text{ kg/m}^2 \cdot \text{h}^{0.5}$
Shear adhesion to steel			6 MPa
Tensile strength	BS 2782-3		5.4 MPa
Elongation	BS 2782-3		80 %
Slip resistance	EN 13036-4		Class 1
Adhesive bond strength	EN 1542	$> 1.5 \text{ MPa}$	$> 2.0 \text{ MPa}$
Adhesion after freeze/thaw (50 Cycles with salt)	EN 13687-1	$> 1.5 \text{ MPa}$	$> 2.0 \text{ MPa}$
Adhesion after thunder shower (30 Cycles)	EN 13687-2	$> 1.5 \text{ MPa}$	$> 2.0 \text{ MPa}$
Adhesion after dry cycling (30 Cycles)	EN 13687-4	$> 1.5 \text{ MPa}$	$> 2.0 \text{ MPa}$

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

Tolerances are those described in appropriate performance standards.

Tests performed under laboratory conditions, at 23°C, 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. 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. For critical applications, grit-blasting is recommended.

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. Treat galvanised steel with Mordant Solution and all residues removed before priming.

Priming

Concrete & Asphalt;

For high frequency or heavily trafficked surfaces, and other critical applications e.g. carparks and other decks, with significant surface irregularity, then we recommend a primer conditioning layer of Uradeck BC for dry surfaces.

Where Moisture Content of the substrate is <6% and surfaces are dry, waterproof or body coat layers may be directly installed.

Where Moisture Content of the substrate is >6% then surfaces must be primed with Epicon DSP. (Refer to separate TDS).

Steel & Timber;

PRIMER OPTION 1

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

Where the Epicon DSP is used, Uradeck BC should be applied after approximately 12 to 24 hours (depending on temperature), whilst the surface remains tacky.

PRIMER OPTION 2; FOR STEEL ONLY

Apply a coat of Uniseal Primer P2 and ensure that it is evenly spread without leaving pinholes and allow to become tack-free before over coating. (Refer to separate TDS).

Where Uniseal Primer P2 is used, Uradeck BC should be applied after approximately 1-2 hours.

Mixing

Only mix full units of Uradeck BC. 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

Conditioning Layer;

A single sized kiln dried aggregate can be added and blended with the Uradeck BC 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 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; 2 - 5 hours Winter; 5 - 10 hours

Body Coat Layer;

Mixed Uradeck BC should be used immediately after mixing 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 between 0.5mm to 2.5mm and layered to the design thickness, as required. 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 Uradeck BC 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.

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 the sealer coat.

Coverage Guide

Waterproof Layer	
@ 1mm Uradeck BC	1.2kg per m ²
@ 1mm Uradeck BC Filled	1.3kg per m ²
Body Coat Layer Uradeck BC	
@ 1.5mm for 0.3 - 1.2mm aggregate	1.8kg per m ²
@ 2mm for 1.2 - 2mm aggregate	2.4kg per m ²
@ 2.5mm for 1 - 3mm aggregate	3kg per m ²
Body Coat Layer Uradeck BC Filled	
@ 1.5mm for 0.3 - 1.2mm aggregate	1.95kg per m ²
@ 2mm for 1.2 - 2mm aggregate	2.6kg per m ²
@ 2.5mm for 1 - 3mm aggregate	3.3kg per m ²

Sealer Coat

Once Uradeck BC has sufficiently hardened and aggregate removed, apply a coat of Uradeck Finish or Nucoat UVS (see separate TDS).

Indicative overcoat times as follows;

Summer; 2 - 5 hours Winter; 5 - 10 hours

Cleaning

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

Packaging

Uradeck BC is available in 5kg and 25kg units.

Uradeck BC Filled is available in 25kg units.

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.

Uniseal Primer P2 is available in 1 & 5 litre drums.

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

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

Uradeck 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 the containers should be warmed prior to use as this will assist mixing and application.

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.

Limitations

Substrate temperatures should be 3°C above the dew point. In temperatures below 5°C it may be necessary to assist curing by the use of tenting and warm air blowers. Please consult with Nufins technical department for further advice.

Asphalt substrates must be aged or conditioned prior to the application.

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.