Gripdeck HPW

UV resistant, waterproofing and hard-wearing polyurethane traffic coating system

DESCRIPTION

Gripdeck HPW System is a UV resistant, waterproofing and hard-wearing polyurethane traffic coating system. It is specially designed to consist of a waterproofing and crack-bridging intermediate layer that would protect the concrete slab from water in intermediate and exposed car park decks.

It has excellent resistance to abrasion and wear and excellent chemical resistance to petrol, diesel, engine oil, brake fluid and de-icing salts.

The Gripdeck HPW System consists of the following component:

- **Gripdeck Primecoat U**: a two component, solvent-free epoxy primer with excellent adhesion to concrete and cementitious substrates.
- **Gripdeck Flexcoat 100**: a two component, solvent-free waterproofing and crack-bridging intermediate layer.
- **Antislip Aggregate #3**: a hard-wearing quartz aggregate for producing an anti-slip finish.
- **Gripdeck Wearcoat TE**: a two component, solvent-free, pigmented wearing course with excellent resistance to abrasion and chemical attack.
- **Gripdeck Wearcoat TP100**: a two component, pigmented wearing course with excellent resistance to abrasion and chemical attack. It is applied as the final coat for areas of the car park that are exposed to UV light. It is specifically formulated for colour stability and will not discolour upon exposure to sunlight or other sources of UV light.

APPLICATIONS

Gripdeck HPW System is designed for application in different areas of car parks where waterproofing is required, such as intermediate and exposed decks of the car park.

ADVANTAGES

- Waterproofing and crack-bridging.
- Excellent resistance to petrol, diesel, engine oil and brake fluid.
- Resistant to de-icing salts.
- Available in both smooth and aggregate broadcast finishes for different slip resistance requirements.
- UV resistant.

CHEMICAL RESISTANCE

Gripdeck HPW provides resistance to a wide range of oils, fuels, solvents, acids and bases commonly encountered in car parks. For detailed information, contact DCP Technical Department.

SYSTEM SPECIFICATION

The combination of products specified depends on the area within the car park to which Gripdeck HPW is being applied, as follows:

Exposed decks (outdoor application)

Antislip finish for ramps and turning circles
- One coat Gripdeck Primecoat U.
- One coat Gripdeck Flexcoat 100.
- One coat Gripdeck Wearcoat TE + full blind of Antislip Aggregates #3.
- Two coats Gripdeck Wearcoat TP100.

Antislip finish for traffic aisles and parking bays
- One coat Gripdeck Primecoat U.
- One coat Gripdeck Flexcoat 100.
- One coat Gripdeck Wearcoat TE + full blind of Antislip Aggregates #3.
- One coat Gripdeck Wearcoat TP100.

Smooth finish for traffic aisles and parking bays
- One coat Gripdeck Primecoat U.
- One coat Gripdeck Flexcoat 100.
- One coat Gripdeck Wearcoat TE.
- One coat Gripdeck Wearcoat TP100.

Note: Other grades of Antislip Aggregates can be used but the finish should be checked and approved by end user.

STANDARDS

Gripdeck HPW complies with the ASTM C957 as specified in the Technical Properties table.

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METHOD OF USE

SUBSTRATE PREPARATION

A minimum compressive strength of 25 MPa and a minimum pull-off strength of 1.5 MPa. The concrete substrate should be below 75% RH and have less than 4% moisture content.

Alternatively, consult with DCP Technical Department.

SURFACE PREPARATION

Concrete surfaces must be degreased using degreasing products, torching or any other suitable method which assures the surface is free from any oil traces. Surfaces should be sound and with no irregularities as they can affect the finish of the applied product.

Concrete surfaces are to be mechanically prepared to remove laitance and achieve a flat surface, grit blasting or surface profiling equipment are preferred. Acid etching can be used after consulting with DCP Technical Department. Surface defects such as voids and blowholes should be repaired before application. Consult DCP Technical Department for the best repair material.

Surfaces must be free of any dust or loose particles before product application. Use suitable methods like vacuuming or sweeping. If possible, apply the product on a small test area before actual application to check for any problems with the surface preparation.

GRIPDECK PRIMECOAT U

MIXING

Gripdeck Primecoat U comprises two components; a resin and hardener which are supplied pre-weighted in the correct proportions. Under no circumstances should part mixing be carried out. Taking care to ensure that the bottom and sides are thoroughly drained, pour the contents of the hardener portion into the resin container.

Using a power whisk attached to a slow speed electric drill, mix for approximately 2 minutes, scrape down and re-mix for a further 1 minute, avoiding the entraining of excessive air, until a uniform consistency is obtained. Allow to stand for 1 minute.

Note: Never mix Gripdeck Primecoat U by hand as this could lead to areas of uncured material.

APPLICATION

Once mixing is complete, spread the Gripdeck Primecoat U onto the prepared surface by brush or lamb's wool roller.

OVERCOATING

Gripdeck Primecoat U may be overcoated as soon as it becomes tack free within 24 hours.

GRIPDECK FLEXCOAT 100

MIXING

Gripdeck Flexcoat 100 comprises two components, a resin and a hardener, which are supplied pre-weighted in the correct proportions. Under no circumstances should part mixing be carried out.

The contents of each component should be thoroughly stirred separately to disperse any possible settlement. Taking care to ensure that the bottom and sides are thoroughly scraped, transfer the entire contents the hardener component into the base component.

Using a power whisk attached to a slow speed electric drill, mix for approximately 3 minutes and until uniform colour and consistency are achieved.

Note: never mix Gripdeck Flexcoat 100 by hand as this could lead to areas of uncured material.

APPLICATION

Once mixed, the material should be immediately applied, ensuring that a continuous coating is obtained. Application can be done by brush or squeegee.

OVERCOATING

Gripdeck Flexcoat 100 may be overcoated as soon as it becomes tack-free within 24 hours.

GRIPDECK WEARCOAT TE

MIXING

Gripdeck Wearcoat TE comprises two components, a resin and a hardener, which are supplied pre-weighted in the correct proportions. Under no circumstances should part mixing be carried out.

The contents of the resin pack should be thoroughly stirred to disperse any possible settlement. Taking care to ensure that the bottom and sides are thoroughly scraped, transfer the entire contents of both components into a separate mixing container.

Using a power whisk attached to a slow speed electric drill, mix for approximately 3 - 5 minutes and until uniform colour and consistency are achieved.

Note: Never mix Gripdeck Wearcoat TE by hand as this could lead to areas of uncured material.

APPLICATION

Once mixed, the material should be immediately applied, ensuring that a continuous coating is obtained. Application can be done using a brush, roller or an airless spray machine.

To obtain an anti-slip finish, whilst Gripdeck Wearcoat TE is still wet, broadcast with Antislip Aggregate #3 according to the table of the coverage rates and allow to dry. All excess aggregates shall be removed before applying the final top coats.

OVERCOATING

Gripdeck Wearcoat TE should become tack-free before it is overcoated with a coat of Gripdeck Wearcoat TP100. This can be achieved after a minimum 6 - 8 hours from application at 25°C.

GRIPDECK WEARCOAT TP100

MIXING

Gripdeck Wearcoat TP100 comprises two components, a resin and a hardener, which are supplied pre-weighted in the correct proportions. Under no circumstances should part mixing be carried out. The contents of each component should be thoroughly stirred separately to disperse any possible settlement.

Taking care to ensure that the bottom and sides are thoroughly scraped, transfer the entire contents of the hardener component into the base component. Using a power whisk attached to a slow speed electric drill, mix for approximately 3 minutes and until uniform colour and consistency are achieved.

Note: Never mix Gripdeck Wearcoat TP100 by hand as this could lead to areas of uncured material.

APPLICATION

Once mixed, the material should be immediately applied, ensuring that a continuous coating is obtained. Application can be done by brush, roller or airless spray machine.

OVERCOATING

Gripdeck Wearcoat TP100 may be overcoated as soon as it becomes tack-free within 24 hours.

LIMITATIONS

- Gripdeck HPW system should be protected from contact with water for the first 24 hours after application as discoloration could occur.
- For cold weather working (down to 5°C), it is recommended that materials are stored in a heated building and only removed immediately before use. Accelerated heating methods are not to be utilized under any circumstances.
- Application to commence while temperature is 5°C and rising. In hot weather working conditions (35°C) and above, it is recommended to keep material in a cool shaded area to ensure ease of application.

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CLEANING

Tools should be cleaned with DCP Solvent immediately after use.

PACKAGING

Gripdeck Primecoat U is available in 18 kg packs.
Gripdeck Flexcoat 100 is available in 18 and 30 kg packs.
Gripdeck Wearcoat TE is available in 18 kg packs.
Gripdeck Wearcoat TP100 is available in 18 kg packs.
Antislip Aggregates is available in 25 kg bags.

STORAGE

Gripdeck HPW System has a shelf life of 12 months from date of manufacture if stored in unopened, undamaged, sealed containers in warehouse conditions below 35°C.

If these conditions are exceeded, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

Consult the appropriate Material Safety Data Sheet prior to using Gripdeck HPW System.

TECHNICAL PROPERTIES:	Gripdeck Primecoat U	Gripdeck Flexcoat 100	Gripdeck Wearcoat TE	Gripdeck Wearcoat TP100
Colour:	Brownish clear	Yellowish white	Variable	Variable
Mixed density:	1.50 ± 0.10 g/cm^3	1.30 ± 0.05 g/cm^3	1.45 ± 0.10 g/cm^3	1.30 ± 0.10 g/cm^3
Volume solids:	100%	100%	100%	55 ± 5%
Pot life @ 25°C:	60 - 90 min	60 - 90 min	100 - 140 min	4 - 6 hr
Overcoating time @25°C:	24 hr	24 hr	6 - 8 hr	24 hr
Full cure @ 25°C:	7 days	7 days	7 days	7 days
Bond strength on C25/30 concrete: ASTM D4541	≥ 2.0 MPa (concrete failure)	≥ 2.0 MPa (concrete failure)	≥ 2.0 MPa (concrete failure)	≥ 2.0 MPa (concrete failure)
Shore D hardness: ASTM D2240	Not tested	≥ 40	≥ 80	≥ 25
Taber abrasion: (1000 g, 1000 cycles) ASTM D4060 CS17 wheel	Not tested	Not tested	≤ 80 milligram	≤ 120 milligram
Tensile strength @ 7 days: ASTM D412	Not tested	≥ 2.0 MPa	≥ 10.0 MPa	≥ 4.0 MPa
Elongation at break @ 7 days: ASTM D412	Not tested	≥ 100%	≥ 25%	≥ 15%
Crack bridging: ASTM C1305 (modified*)	Pass			
Slip resistance**: BS 7976, Slider 96	≥ 45 wet ≥ 60 dry			

** Testing was conducted on a smooth finish system at 23°C with 1.6 mm cyclic movement.*
***Results refer to the antislip finish.*

COVERAGE

Application	Antislip Finish		Smooth Finish
	Ramps & turning circles	Traffic aisles & parking bays	Traffic aisles & parking bays
Gripdeck Primecoat U	One coat 0.20 - 0.30 kg/m^2/coat, depending on surface texture and porosity		
Gripdeck Flexcoat 100	One coat 0.65 - 0.75 kg/m^2/coat		
Gripdeck Wearcoat TE	One coat 0.35 kg/m^2/coat		One coat 0.28 kg/m^2/coat
Antislip Aggregate #3	2 - 3kg/m^2		
Gripdeck Wearcoat TP100	Two coats 0.25 kg/m^2/coat	One coat 0.25 kg/m^2/coat	One coat 0.25 kg/m^2/coat
Total system thickness	1.60 - 1.80 mm	1.50 - 1.70 mm	0.90 - 1.10 mm

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A wide range of construction chemical products are manufactured by DCP which include:

- Concrete admixtures.
- Surface treatments
- Grouts and anchors.
- Concrete repair.
- Flooring systems.
- Protective coatings.
- Sealants.
- Waterproofing.
- Adhesives.
- Tile adhesives and grouts.
- Building products.
- Structural strengthening.