

Fosroc Dekguard PU100



constructive solutions

UV resistant, single component aliphatic, polyurethane protective coating system

Uses

Provides a high protection system, to a variety of surfaces exposed to aggressive environments. Typical areas for application would include the following :

- Wherever UV resistance is required.
- Underground protection in foundations etc.
- UV resistant top coat for epoxy coatings in external areas.

Advantages

- **Low cost in service** - due to combination of excellent UV and good chemical resistance properties.
- **Labour saving** - can be applied directly onto fully cured epoxy coatings, without need for priming system.
- **UV Stable** - will not fade or deteriorate in strong sunlight.
- **Excellent service life** - resistant to chlorides and sulphate ions plus a wide range of chemicals.
- **Environment friendly** - water based product suitable for enclosed areas.

Description

Dekguard PU100 is a high quality, one component, aliphatic polyurethane, protective coating which can be applied to a variety of surfaces including steel, wood, concrete and fully cured epoxies. It is supplied as a single pack material ready for on-site use and it provides a low gloss coating.

Dekguard PU100 is applied as a single coat between 100 and 150 microns wet film thickness, which will cure to give a finished dry film thickness of between 40 and 70 microns. Additional coats may be required for extreme exposure conditions.

Specification

The final, corrosion resistant coating shall be Dekguard PU100, an aliphatic polyurethane, protective coating. The coating shall possess excellent UV resistance properties. It shall be compatible with concrete, steel, wood and fully cured epoxies.

Properties

Specific gravity	:	1.3
Solids by volume @ 25°C	:	44%
		@ 20°C @ 35°C
Drying time	:	
touch dry		1 hr 0.5 hour
recoatable		7 hours 4hours
full cure		7 days 5 days

Chemical resistance :

Fully cured coatings were tested on some common chemicals. Tests were performed by constant immersion, followed by visual inspection (ASTM D1308 method)

Acids (m/v)

Acetic acid 20%	:	Excellent
Lactic acid 20%	:	Excellent
Nitric Acid 5%	:	Excellent
Oleic acid ¹	:	Good

Aqueous solutions

Magnesium Sulphate 25%	:	Excellent
Tap Water	:	Excellent
Sea Water	:	Excellent
Ground Water	:	Excellent
High sulphate water	:	Excellent
Distilled water	:	Excellent

(1) Note - acceptable performance up to 7 days immersion

Consult the local Fosroc office for specific recommendations to meet varying operating conditions.

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Instructions for use

Dekguard PU100 can be applied on top of a number of different substrates and surfaces. The instructions which follow therefore need to be read carefully to ensure that the correct procedure is adopted in each case.

Surface preparation

All surfaces to be treated with Dekguard PU100 should be clean and free from dust or other loose material.

Concrete surfaces

All surface laitance should be removed by grit blasting or water jetting, to provide a suitable key. The general standard of surface preparation should be in accordance with ACI 503R-89, Chapter 5, Paragraph 5.4.

Following the preparation of a concrete surface, care should be taken to ensure that any surface irregularities are filled with the appropriate Nitomortar* product.

Metal surfaces

Any metal surfaces should be blasted to a bright finish, meeting the requirements of Swedish Standard SA 2½ or equal.

Fully cured epoxies

Please contact your local Fosroc office for details on surface preparation required for existing epoxy coatings.

Priming

For porous surfaces like concrete, priming of the substrate must be completed using potable water. Saturate the substrate for at least 15mins. For very porous surfaces, saturate for 30mins prior to application of Dekguard PU100. Remove any excessive water leaving the substrate in a saturated surface-dry condition. For metal and wood substrates, priming is not necessary. In certain instances, it is possible to apply Dekguard PU100 directly on top of prepared, existing epoxy substrates - contact the local Fosroc office for details.

Mixing

The contents should be thoroughly stirred to disperse any possible settlement.

Application

Hand application

This can be suitably achieved by brush or roller.

Apply at a rate of 0.1 - 0.15litres per square meter per coat to achieve a minimum wft of 100-150 microns. If required, the second coat should be applied only after the first coat has been cured and before 24 hours.

Spray application

Faster rates of application are possible using airless spray equipment, but the local Fosroc office should be contacted prior to application for technical advice.

Cleaning

Tools and equipment should be cleaned with water immediately after use. However in case of delay in cleaning, causing the coating to dry on the equipment, use Fosroc Solvent 102.

Repairing and overcoating

Any applications of Dekguard PU100 which have become damaged can be readily overcoated.

The existing surface should be well abraded, using a stiff wire brush, or similar, to ensure that a good mechanical bond will be achieved between the two layers.

Overcoating works can then proceed as for new work.

Estimating

Supply

Dekguard PU100	:	20 litre pails
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Coverage

The coverage figures quoted are theoretical, and based upon application to a properly prepared substrate.

Since application conditions vary greatly; due to substrate porosity, quality of surface preparation, application thickness and wastage factors, the on-site figures may vary from those shown below.

Dekguard PU100	:	10 m ² /litre @ 100micron wft/ coat
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Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Limitations

- A minimum application temperature of 10°C should be observed at all times.
- Not recommended for immersed conditions
- If the concrete surface is extremely porous then consider priming with Nitoprime DG or Nitobond AR.

Precautions

Health and safety

Dekguard PU100 should not come in contact with skin or eyes, nor should they be swallowed.

Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams such as Kerodex Antisolvent or Rozalex Antipaint provide additional skin protection.

Should accidental skin contact occur, remove immediately with a resin removing cream such as Kerocleanse Standard Grade Skin Cleanser or Rozaklens Industrial Skin Cleanser, followed by washing with soap and water - **do not** use solvent.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed seek medical attention immediately - **do not** induce vomiting.

For further information, please consult the Material Safety Data Sheet for Dekguard PU100.

Fire

Dekguard PU100 is non flammable.

Storage

Shelf life

Dekguard PU100 has a shelf life of 12 months, when stored in warehouse conditions below 25°C.

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Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc office - as below.

* Denotes the trademark of Fosroc International Limited

† See separate data sheet



Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service. **All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.**

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