

Dekguard W

Water-based acrylic co-polymer protective and decorative coating for concrete and masonry

Uses

To protect atmospherically exposed reinforced concrete structures, cementitious substrates and masonry from aggressive elements, weathering and rain. Dekguard W is suitable for use on all types of structures, including those in coastal environments. It is equally suitable for new and existing structures. Dekguard W is a component of Fosroc's Renderoc system of concrete reinstatement.

Advantages

- Excellent barrier to carbon dioxide, chloride ions, oxygen and water
- Allows water vapour to escape from the structure
- High resistance to the effects of long-term weathering and durable in all climatic conditions
- Water-based
- Wide range of decorative colours
- Range of primers
- One or two coat application

Standards compliance

Fire tested to BS 476 Pt 7: 1987. Spread of flame Class 1.

Description

The Dekguard W system comprises a single component, penetrating silane-siloxane primer and a single component pigmented coating, both ready for immediate site use.

A range of reactive primers are available to suit substrate porosity and site conditions and inhibit the passage of water and waterborne contaminants.

Properties

The values obtained are for the Dekguard W system applied in two coats at the minimum recommended application rate.

Volume solids		
Dekguard W:	:	41%
Carbon dioxide diffusion resistance (Taywood method)		
Equivalent thickness of air		
Initial:	:	> 50 metres
After 2000 hours QUV:	:	> 50 metres
Equivalent thickness of 30 N/mm ² concrete cover (Taywood method):		
:	:	> 125 mm
Water vapour diffusion		
Resistance	:	SD 0.066 m @
(Taywood method):	:	50 microns dft
Reduction in chloride ion penetration (Aston University Diffusion Cell method)		
:	:	> 84%
Fire testing (BS 476, Pt 7: 1987)		
Spread of flame:	:	Class 1

Application instructions

Preparation

All surfaces should be dry and free from any contamination and all traces of mould release oils and curing compounds.

This is best achieved by lightly grit-blasting the surface. Where moss, algae or similar growths have occurred, treatment with a proprietary biocide should be carried out after the grit-blasting process.

Note: it is not necessary to remove Nitobond AR curing membrane prior to the application of Dekguard W.

Where application over existing sound coatings is required, trials should be conducted to ensure compatibility and retention of the bond between the underlying coating and the substrate. For advice, consult the local Fosroc office. It is essential to produce an unbroken coating of Dekguard W. Surfaces containing blow-holes or areas of pitting should first be filled using Renderoc FC, a cementitious fairing coat.

Dekguard W

Application

In order to obtain the protective properties of the Dekguard W system, it is important that the correct rates of application and overcoating times are observed. Any areas of glass should be masked. Plants, grass, joint sealants, asphalt and bitumen-painted areas should be protected during application. Dekguard Primer should be applied in one or more coats to achieve the recommended application rate. This is best accomplished by using portable spray equipment of the knapsack type. Porous surfaces may require the application of Nitoprime DG as a 'film forming' primer, or may require other special treatment. Nitoprime DG should be applied at the recommended application rate in continuous, multiple coats as necessary.

If in doubt about the condition of the substrate, consult the local Fosroc office. The primer should be allowed to dry for a minimum of 12 hours (at 20°C) before continuing. Under no circumstances should any primer be overcoated with Dekguard W until the surface is properly dry.

If the total recommended minimum film thickness is maintained, the anti-carbonation and weathering properties will be maintained. Dekguard W may be applied by the use of suitable brushes, rollers or spray equipment. All primed substrates should be treated with two coats of Dekguard W. Stir material before use. The first coat should be applied to achieve a uniform coating with a wet film thickness not less than 135 microns. This coat should be allowed to dry until firm to the touch. Typically, this will be after 16 hours in dry weather at 20°C. The second coat of Dekguard W should be applied as detailed above, again achieving a wet film thickness not less than 135 microns, and a total dry film thickness not less than 110 microns.

Cleaning

Dekguard W should be removed from tools and equipment with clean water immediately after use.

Limitations

When applied over existing coatings or paints, the performance characteristics of Dekguard W may be impaired and its fire rating invalidated.

The product should not be applied in windy conditions where early-age dust adhesion may occur, or where rain is likely within 2 hours at 20°C or 20 hours at 5°C (up to 80% RH) or when the prevailing relative humidity exceeds 90%.

Dekguard W should not be considered for areas subjected to exposure to ponded water. Dekguard S should be considered where occasional ponded water is anticipated.

Estimating

Supply

Renderoc FC	:	25 kg bags
Dekguard Primer	:	20 litres
Nitoprime DG	:	25 litre pails
Dekguard W	:	20 litres
Fosroc Solvent 102	:	5 litre pails

Coverage and yield

Renderoc FC	:	15 litres/25kg bag (5m ² at 3mm thickness)
Dekguard Primer	:	2.5m ² per litre
Nitoprime DG	:	2.5m ² per litre
Dekguard W	:	3.0m ² per litre

The coverage figures given are theoretical - due to wastage factors and the variety and nature of possible substrates, practical coverage figures will be reduced.

Storage

Dekguard W has a shelf life of 12 months if kept in a dry store in the original, unopened packs. Store in cool, dry conditions, away from sources of heat and naked flames.



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Important note

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Dekguard W

Precautions - Health and safety

Dekguard W should not come in contact with the skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye protection.

If working in confined areas, suitable respiratory protective equipment must be used. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately — **do not** induce vomiting.



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