

Repcoat®

One component water based acrylic elastomeric protective anti carbonation coating system



DESCRIPTION

Repcoat is a high build elastomeric, microporous coating exhibiting excellent resistance to attack from carbon dioxide, airborne chlorides and acid rain, with exceptional weathering resistance.

Repcoat has excellent crack bridging properties, yet provides a smooth protective, decorative coating for concrete and other masonry surfaces. For effective anti-carbonation protection a two-coat treatment is recommended after the application of the silane siloxane based impregnating primer.

The product is formulated to give a tough flexible and coloured coating which will give a waterproofing coating to a wide variety of substrates. A textured finish may be obtained if required.

APPLICATIONS

- » Bridge abutments.
- » External concrete surfaces of storage tank and masonry surfaces.
- » Multistory building and villas.
- » Where a high external tough coating is required.
- » Concrete cladding.

ADVANTAGES

- » High build elastomeric, microporous coating.
- » Excellent resistance to carbon dioxide, airborne, chlorides and water borne.
- » Exceptional weathering resistance.
- » Excellent crack bridging properties.
- » Protective and decorative coating.
- » Excellent waterproofing characteristics.

STANDARDS

Repcoat complies with the requirements of EN 1504-2 Surface Protection Systems Principles 1.3, 2.2 and 8.2.

METHOD OF USE

SURFACE PREPARATION

The substrate should be sound clean and free from dust and all loose or flaking material. All holes and deep cracks should be filled with a suitable filler.

All traces of oil, grease, chemical contaminants and extraneous matter should be removed. Any traces of mould or algae must be removed and the area treated with a suitable anti-fungicide or bleach solution.

TECHNICAL PROPERTIES:

Colour:	White, grey, and can be available in different colours
Density:	1.35 ± 0.05 g/cm ³
Solids content:	
By weight	64 ± 2%
By volume	53 ± 2%
Touch dry time:	30 - 60 min @ 25°C
Overcoating time between consecutive coats of Repcoat*:	2 hr @ 35°C 4 hr @ 25°C
Application temperature:	5 to 38°C
Crack bridging capacity: ASTM C1305-08	Pass (3.2 mm)
Carbonation depth: TM:NT Build 372:1991-02 700 hr @ severe conditions of humidity & 20% CO ₂	No penetration in coated sample 0.7 mm penetration in control
Chloride ion diffusion coefficient: TM:NT Build 492:1999-11	7.3 x 10 ⁻¹⁵ m ² /sec
Reduction in chloride ion penetration in severe environment with focused applied voltage as per ASTM C1202	98%
Elongation at break: ASTM D412	≥ 350% @ 7 days
Surface burning characteristics: ASTM E84	
Flame spread index (FSI):	10
Smoke development index (SDI):	10
VOC:	< 50 g/ltr

*If more than one coat is needed.

Don Construction Chemicals India Private Limited

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Repcoat®

Repcoat can be applied over green dry concrete, as long as Repcoat Primer is used.

MIXING

Stir Repcoat thoroughly prior to use.

PRIMING

Repcoat primer is a ready for use, single component silane/siloxane based impregnating primer providing protection from rebar corrosion, efflorescence, freezethaw damage, water penetration, oil penetration, mold and mildew. This primer is used for all absorbent substrates before the application of Repcoat.

Repcoat Primer should only be applied over clean and sound substrates that are free from oil, grease and curing compounds. Repcoat primer is applied at a rate between 0.1 - 0.2 litre/m² depends on the porosity of the substrates. It is important to wait for a minimum of 12 hours before the application of Repcoat.

APPLICATION

Repcoat can be applied normally at temperatures between 3°C and 38°C. Apply evenly with roller, brush or airless spray. For airless spray 5 - 10% dilution is recommended.

A one coat or two-coat system may be used. Two coats should always be used on dark, absorbent and heavily textured surfaces and when full carbonation protection is required. Porous, rough and irregular surfaces will reduce coverage rates.

CLEANING

Tools and equipment can be cleaned with water.

PACKAGING

Repcoat is available in 5, 10 and 25 kg containers. Repcoat primer is available in 5, 10 and 25 kg containers.

COVERAGE

Repcoat: 0.38 litre/m² per coat to achieve 200 microns dry film thickness.

Repcoat Primer: 0.1 - 0.2 litre/m², depending on the substrate porosity.

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Performance characteristics	EN 1504-2 requirements	Measured value
Permeability to CO ₂ : EN 1062-6	S _D > 50 m	> 60 m
Permeability to water vapour: ISO 7783-1 ISO 7783-2	Class I: S _D < 5 m (Permeable) Class II: 5 ≤ S _D ≤ 50 m Class III: S _D > 50 m (Not Permeable)	S _D ≤ 0.5 m (Permeable to water vapour)
Capillary water absorption: EN 1062-3	< 0.1 kg/m ² .h ^{0.5}	≤ 0.03 kg/m ² .h ^{0.5}
Adhesion strength: EN 1542	≥ 1.5 MPa	≥ 2.0 MPa (Flexible systems with trafficking)

TECHNICAL PROPERTIES FOR REPCOAT PRIMER

Colour:	Colourless liquid with solvent smell
Density:	0.80 ± 0.05 g/cm ³
Rapid chloride permeability: ASTM 1202	Low
ISAT: BS 1881, Part 5:1970 after 10 minutes	< 0.01 ml/m ²

STORAGE

Repcoat should be stored under dry warehouse conditions at temperatures between 10°C and 35°C.

SHELF LIFE

Repcoat and Repcoat primer have a shelf life of 12 months from date of manufacture if stored in proper conditions and sealed drums.

If these conditions are exceeded, DCP Technical Department should be contacted for advise.

Repcoat® Primer

Silane/siloxane based hydrophobic primer



DESCRIPTION

Repcoat Primer is a penetrating and film forming hydrophobic silane/siloxane based primer. It is used as a primer for Repcoat acrylic based protective coating. When applied, it reacts with concrete and masonry surfaces producing a clear hydrophobic barrier that prevents the passage of water and hence protects exposed reinforced concrete structures from attack by chloride ions.

ADVANTAGES

- » Deep penetration into substrate.
- » Very good reduction of water and chloride intrusion.
- » Breathable, allows for water vapour release.

METHOD OF USE

SURFACE PREPARATION

Surface must be clean, sound and free from oil, grease, curing compound, or any contamination. Any contaminants should be removed by light grit blasting surfaces containing slight surface imperfection or blowholes should be filled with a skim coat of cementitious repair mortar such as Cemfair FD. Deep holes and defected areas should be repaired with cementitious products from DCP-Repair range.

APPLICATION

Repcoat Primer is applied at a rate between 0.1 - 0.2 liter/m², depending on the porosity of the substrate.

Repcoat Primer can be overcoated as soon as it becomes tack-free, this can be achieved within 1 - 2 hours, depending on ambient conditions.

CLEANING

Tools and equipment can be cleaned with DCP-solvent when wet. Hardened materials must be cleaned mechanically.

PACKAGING

Repcoat primer is available in 5, 20 and 200 litre drums.

COVERAGE

0.1 - 0.2 litre/m², depending on the substrate porosity.

TECHNICAL PROPERTIES:

Specific gravity:	0.91 ± 0.05
Solids content:	17 ± 1%

STORAGE

Repcoat Primer should be stored under cover at an ambient temperature range of 10°C and 25°C.

SHELF LIFE

Repcoat Primer has a shelf life of 12 months from date of manufacture if stored in proper conditions and sealed drums.

If these conditions are exceeded, DCP Technical Department should be contacted for advise.

CAUTIONS

HEALTH AND SAFETY

Care should be taken during use and storage to avoid contact with skin, eyes and mouth. Wear suitable protective clothing, gloves and eye/face protection.

Should accidental skin contact occur, remove immediately with plenty of clean water. If swallowed, seek medical attention immediately - do not induce vomiting.

For further information refer to the Material Safety Data Sheet.

FIRE

Repcoat Primer is flammable. Ensure adequate ventilation. Do not use near a naked flame and do not smoke during use.

Flash point: > 36°C.

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Repcoat® Primer

MORE FROM DON CONSTRUCTION PRODUCTS

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.

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Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

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