



TDS RX-PROTADECK MANUAL

PRODUCT DATA SHEET

Description

A highly elastic heavy duty, manually applied 100% seamless waterproofing membrane.

RX-Protadeck Manual is a medium viscosity, urethane-modified, pre-reacted 100% solid membrane system based on acrylic monomers.

To initiate curing, just add RX-Catalyst.

Features and Benefits

- Highly flexible with excellent crack-bridging characteristics even at extremely low temperatures (20°C and below).
- Easy to apply using a roller or a squeegee.
- Thixotropic version available for vertical surfaces.
- Very high impact and puncture resistance.
- Withstands stress and movements in the substrate.
- Excellent adhesion to many types of substrate.
- Good chemical and abrasion resistance.
- Can be applied over a wide range of ambient and substrate temperatures (-10°C to +35°C)

Uses

RX-Protadeck Manual is designed as a simple to apply, highly elastomeric liquid waterproofing membrane and coating.

The cured product is a very flexible crack-bridging membrane that retains its flexibility and crack-bridging performance in service, even when the temperature reaches -20°C.

The domain of application for RX-Protadeck Manual include:

- As a bridge deck waterproofing membrane, onto which asphalt at temperatures up to 250°C can be directly applied.
- For the sub-grade waterproofing of buildings and civil engineering structures, including underneath ground slabs.
- The waterproofing of concrete and metal railway bridges, including directly under track ballast.
- The waterproofing of pedestrian and vehicular trafficked areas (balconies, car parks, etc.)
- The waterproofing of tunnels, channels and dam structures.
- The waterproofing of containment structures, including reservoirs and waste and contaminated material storage structures.
- Offshore platforms.
- The protection and waterproofing of stadium terracing.



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RX-Manual can be applied at a whole range of ambient and substrate temperatures (-10°C to +35°C) onto cementitious based screeds, concrete, filled bitumen/asphalt, metal ceramic tile and wood substrates.

Packaging

30kg metal pails.

Shelf Life

6 months when stored in a cool and dry place and in originally closed delivery packaging.
The optimal storage temperature is 15 - 20°C.

Technical Information

Technical Characteristics (liquid state)

| | | |
|------------------------------------|----------------------|-----------|
| Viscosity, 25°C | 460 - 730 mPa*s | DIN 53018 |
| Density, 25°C | 1.3 g/ml | ISO 2811 |
| Pot life / processing time at 20°C | Approximately 15 min | |
| Curing time at 20°C | Approximately 60 min | |
| Flash point | +11.5°C | ISO 1516 |

Technical Characteristics (cured state)

| Samples tested at 20°C | | |
|------------------------|---------|------------|
| Shore A hardness | >85 IRD | NFP 98285 |
| Shore D hardness | 55 | DIN 53505 |
| Tensile strength | 8.4 MPa | ISO 527 |
| Elongation | 370% | ISO 527 |
| Modulus of Elasticity | 78 MPa | ISO 527 |
| Abrasion 100 cycles | 64 mg | ISO 7784-2 |
| Dynamic crack-bridging | >5 mm | BPG |

| Samples kept at -20°C for 24 hours before testing | | |
|---|---------|---------|
| Tensile strength | 8.8 MPa | ISO 527 |
| Elongation | 360% | ISO 527 |
| Modulus of elasticity | 630 MPA | ISO 527 |
| Dynamic crack-bridging | >5mm | BPG |

Please note: an objective comparison with other data is only possible if norms and parameters are identical.



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Usage Guidelines

Substrate Preparation

The area to be waterproofed must be dry, firm, solid and free from dust, fat and oil.

Laitance and loose particles must be removed thoroughly, e.g. by shot blasting.

Fats or oils can be removed by flame blasting, for example.

Before the application of the RX-Protadeck Manual, a suitable RX-Primer, including sanding when appropriate, must first be applied.

For further details, see our "General Preparation and Application Guidelines for Robex Floor Protection Systems."

Mixing

Prior to use, RX-Protadeck Manual must be carefully stirred to achieve a uniform distribution of the paraffin contained in the product. RX-Protadeck Manual is then thoroughly mixed together with the RX-Catalyst (50% dibenzoyl peroxide), in accordance with the guidelines below.

It should be noted that the amount of catalyst powder to be added, depends upon the temperature.

| | |
|-----------|---|
| At 30°C | Add 200g catalyst to a pail of 30kg |
| At 20°C | Add 350g catalyst to a pail of 30kg |
| At 10°C | Add 700g catalyst to a pail of 30kg |
| At 0°C | Add 1 200g catalyst to a pail of 30kg |
| Below 0°C | Add 1 200g catalyst to a pail of 30kg and, additionally, add RX-Accelerator |

Please contact our Technical Service Department for further details.

Please note: Weight to volumetric conversion of catalyst:

1cm³ of RX-Catalyst weighs 0.64g

1g of RX-Catalyst = 1.57cm³

Application

RX-Protadeck Manual is designed to be manually applied using a roller, squeegee or trowel.

Consumption

For consumption of the product per m², please consult the System Build-up Sheets.

Per layer of membrane: a minimum thickness of 1mm (=1.3kg/m²) should always be applied.

Health and Safety Precautions

Suitable protective clothing, gloves and safety goggles must be worn when filling, mixing or handling RX-Protadeck manual.

When the product is applied in enclosed areas without natural ventilation, forced ventilation must be arranged.

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Avoid strong concentration of vapour as well direct contact with skin or eyes.

For further information, see our Material Safety Data Sheet or contact our Technical Division.

Guarantee

Robex SA (Pty) Ltd warrant all goods to be free from defects and will replace materials proven to be defective but make no warranty as to appearance of colour.

The information and recommendations herein are believed by Robex S (Pty) Ltd to be accurate and reliable.

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