

A HIGHLY ELASTIC HEAVY DUTY MANUALLY APPLIED 100% SEAMLESS WATERPROOFING MEMBRANE

KEY BENEFIT SUMMARY

- Highly flexible with excellent crack-bridging characteristics even at extremely low temperatures (-20 °C and below)
- Easy to apply using a roller, squeegee or tooth rake
- Thixotropic version available for vertical surfaces
- Excellent Corrosion inhibition properties
- Very high impact and puncture resistance
- Withstands stress and movements in 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 from minus 20°C to + 35°C
- Can easily be repaired; excellent inter-layer adhesion due to chemical fusion bonding
- Overcoating time not critical
- Fully set & dry one hour after application

PRODUCT INFORMATION

Description

MATACRYL[®] Manual is a medium viscosity, urethane-modified, pre-reacted 100 % solid membrane system based on acrylic monomers.

To initiate curing, just add MATACRYL[®] CATALYST.

Usage

MATACRYL[®] Manual is designed as an easy to apply, highly elastomeric liquid waterproofing membrane and coating.

The rapid curing product results in a very flexible crack-bridging membrane that retains its flexibility and crack-bridging performance in service even when the temperature reaches as low as -20 °C.



- The application exposures for MATACRYL[®] Manual include among others, the following:
- 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 steel Railway bridge decks including directly under Rail ballast.
 - The waterproofing of Pedestrian and Vehicular trafficked areas.
 - The protection and waterproofing of Stadium Terracing
 - The waterproofing of Cut & Cover Tunnels, Channels and Dam structures.
 - The waterproofing of containment structures including Reservoirs and waste and contaminated material storage structures.
 - Offshore platforms.
 - As an exposed Roof Coating

MATACRYL[®] Manual can be applied at a whole range of ambient temperatures (-20°C to +35°C) onto cementitious based screeds, concrete, filled bitumen/asphalt & steel etc. substrates.

Packaging

25 kg units.

TECHNICAL INFORMATION

Technical characteristics (liquid state)

Viscosity, 25 °C:	460 – 730 mPa·s	DIN 53019
Density, 25 °C:	1.3 g/ml	EN ISO 2811
Pot life / processing time at 20 °C:	± 15 min	Internal method
Curing time at 20 °C:	± 60 min	Internal method
Flash point:	+ 11.5 °C	EN ISO 1516

Technical characteristics (cured state)

Samples tested at +20 °C		
Shore A hardness:	91	EN ISO 868
Shore D hardness:	35	EN ISO 868
Tensile strength:	11.6 MPa	EN ISO 527
Elongation at maximum strength:	407 %	EN ISO 527
Elongation at rupture:	407 %	EN ISO 527
Modulus of elasticity:	88 MPa	EN ISO 527
Samples tested at -20 °C		
Tensile strength:	21.4 MPa	EN ISO 527
Elongation at maximum strength:	6.52 %	EN ISO 527
Elongation at rupture:	58.9 %	EN ISO 527
Modulus of elasticity:	463 MPa	EN ISO 527
Static crackbridging:	3.3 mm	EN 1062-7

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

USAGE GUIDELINES

Substrate preparation

The area to be waterproofed must be dry, firm, solid and free of dust, fat and oil. Laitance and loose particles must be removed thoroughly, e.g. by shot blasting. Fats or oils as well as moisture can be removed by flame blasting for example. Cracks & other defects should be treated in accordance with the Installation Manual.

Before the application of the MATACRYL® Manual, a suitable MATACRYL® PRIMER, including sanding when appropriate, must be first applied.

For further details, see our general preparation and application guidelines for MATACRYL® waterproofing systems.

Application conditions

- Ambient temperatures min. -25 °C, max. +35 °C.
- Substrate temperature NOT to exceed +42 °C
- Substrate temperature should always be at least 3 °C above the dew point temperature.
- Moisture Content in substrate to be max 5-6%
- In closed rooms a forced ventilation with at least 7-fold air exchange per hour is recommended.

Where these conditions are not forthcoming, please contact our Technical Service Department.

Mixing

Prior to use, MATACRYL® Manual must be carefully stirred to achieve a uniform distribution of paraffin contained in the product. MATACRYL® Manual is thoroughly mixed together with the MATACRYL® CATALYST (50 % dibenzoyl peroxyde), in accordance with the following guidelines.

Dosage rates of catalyst powder will depend upon the application temperature (see table below)

Guidelines for MATACRYL® CATALYST addition to MATACRYL® Manual		
Temperature	Weight percentage Catalyst	Gram Catalyst per 25 kg
30 °C	1,5 %	375 g
20 °C	2,0 %	500 g
10 °C	4,0 %	1000 g
0 °C	5,0 %	1250 g
< 0 °C	6,0 %	1500 g

Remark:

The optional product temperature is 15 – 20 °C.

At temperatures below 0 °C add also the accelerator, MATACRYL® ACCELERATOR should also be added.

For further information contact our technical department.

Application

MATACRYL® Manual is designed to be manually applied using a roller, squeegee or tooth rake with depths set as per the Specifications.

The Membrane may be applied in either 1 x or 2 x Coats dependent on job-site conditions etc.

Consumption

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

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

NOTE: For Bridge Decks & Cut & Cover Tunnels, the minimum thickness is 2mm.

For Rail Brick Decks where Ballast & Track will be installed, the minimum thickness is 3mm.

As a general rule, all other exposures will require a minimum Membrane thickness or d.f.t. of between 1.5 – 2mm



STORAGE & SHELF LIFE

12 months when stored in a cool and dry place and in originally closed packaging. The optimal storage temperature is between 15-20 °C in HAZMAT storage facilities. However and where this is not available, for example on site just before & when installation commences, it is essential that Goods are stored shaded from direct sunlight & in cool dry conditions.

HEALTH AND SAFETY PRECAUTIONS

Protective clothing, gloves and safety goggles must be worn when filling, mixing or handling of MATACRYL[®] Manual.

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

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

For further information see our Material Safety Data Sheet.

TECHNICAL SERVICE

Contact RPM/Belgium N.V. or Alteco Technik GmbH

GUARANTEE

RPM/Belgium N.V - Alteco Technik GmbH warrants all goods to be free from defects and will replace materials proven to be defective but makes no warranty as to appearance of colour. The information and recommendations herein are believed by RPM/Belgium N.V - Alteco Technik GmbH to be accurate and reliable.

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