

# Matacryn<sup>®</sup> Manual

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

## Key Benefits Summary:

- 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
- Excellent waterproofing properties
- 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)
- Can easily be repaired; excellent inter-layer adhesion due to chemical bonding
- Overcoating time not critical
- Fully cured one hour after application

## Product Information

### Description:

**Matacryn<sup>®</sup> Manual** is a medium viscosity, urethane-modified, prereacted 100% solid membrane system based on acrylic monomers. To initiate curing, just add **Matacryn<sup>®</sup> Catalyst**.

### Usage:

**Matacryn<sup>®</sup> Manual** is designed as a simple to apply, highly elastic 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 areas of application for **Matacryn<sup>®</sup> Manual** include:

- As a Bridge Deck waterproofing membrane, on to which asphalt at temperatures up to 250°C can be directly applied.
- For sub-grade waterproofing of Buildings and Civil Engineering Structures, including below-grade Slabs.
- Waterproofing of concrete and metal Railway bridges including directly under track ballast.
- Waterproofing of Pedestrian and Vehicular trafficable areas (Balconies, Car Parks etc.)
- Protection and waterproofing of Tunnels, Channels and Dam structures.
- Waterproofing of containment structures including Reservoirs and waste and contaminated material storage structures.
- Offshore platforms.

**Matacryn<sup>®</sup> Manual** can be applied at a wide 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:

30 kg units

## Technical Information:

### Technical characteristics (liquid state)

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

### Technical characteristics (cured state)

*Samples tested at 20°C*

Shore A hardness:	>85 IRHD	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 1000 cycles:	64mg	ISO 7784-2
Dynamic crack-bridging:	>5mm	BPG

*Samples conditioned at -20°C for 24 hrs 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 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 dampness can be removed by flame blasting for example. Before application of **Matacryn<sup>®</sup> Manual**, a suitable **Matacryn<sup>®</sup> Primer** must be first applied, including sand-blinding when appropriate.

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

### Mixing:

Prior to use, **Matacryn<sup>®</sup> Manual** must be carefully stirred to achieve a uniform distribution of agents contained in the product. **Matacryn<sup>®</sup> Manual** is then thoroughly mixed together with the **Matacryn<sup>®</sup> Catalyst** (50% dibenzoyl peroxide), in accordance with the following guidelines.

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

at 30°C add 200 grams of catalyst to a pail of 30 kg  
 at 20°C add 350 grams of catalyst to a pail of 30 kg  
 at 10°C add 700 grams of catalyst to a pail of 30 kg  
 at 0°C add 1200 grams of catalyst to a pail of 30 kg  
 Below -5°C add 1200 grams of catalyst to a pail of 30 kg and additionally add **Matacryn<sup>®</sup> Accelerator**. Please contact your local Equus Representative for further details.

Note: weight to Volumetric conversion of catalyst.

1 cc of **Matacryl® Catalyst** weighs 0.64 gm

1 gm of **Matacryl® Catalyst** = 1.57 cc

### **Application:**

**Matacryl® Manual** is designed to be manually applied using a roller or squeegee.

### **Consumption:**

For product consumption per m<sup>2</sup>; please consult the System Build-up Sheets.

Per layer of membrane; a minimum thickness of 1mm (=1.23kg/m<sup>2</sup>) should always be applied per coat.

### **Shelf Life:**

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

### **Health & 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 Safety Data Sheet.

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