



MATACRYL® MANUAL

Seamless Waterproofing Membrane

Product Description

Matacryl® Manual is a medium viscosity, urethane-modified, pre-reacted 100 % solid membrane system based on acrylic monomers. It is part of an innovative waterproofing system that supports tight completion timelines of infrastructure projects and ensures long-term performance and resilience.

Basic Uses

Matacryl Manual is an easy to apply, highly elastomeric liquid waterproofing membrane and coating. It can be applied at a range of ambient and substrate temperatures -4 to 95 °F (-20 to 35 °C) onto cementitious based screeds, concrete, filled bitumen/asphalt, metal, ceramic tile and wood substrates. Waterproofing applications include:

- Bridge deck onto which rolled asphalt at temperatures up to 382 °F (194 °C) can be directly applied.
- Sub grade of civil engineering structures including underground slabs.
- Concrete and metal railway bridges, including directly under track ballast.
- Pedestrian and vehicular bridges and walkways.
- Tunnels, channels, dam structures and offshore platforms.
- Containment structures including reservoirs, and waste and contaminated material storage.

Features and Benefits

Matacryl Manual is a highly-flexible crack bridging membrane with excellent performance characteristics, even in extremely low temperatures: -4 °F (-20 °C).

- Fully cured one hour after application. Rapid cure time allows for quick installation, regardless of temperature, letting projects continue in colder months.
- Adheres to many types of substrates.
- Unique chemistry promotes interlayer adhesion, allowing for easy repairs.
- No time limit or additional preparation for subsequent membrane applications.
- Easy to apply using a roller or squeegee.
- Excellent chemical, abrasion, impact and puncture resistance.
- Withstands movement and stress in the substrate.
- Thixotropic version available for vertical surfaces.

Physical Properties*

Property	Test Method	Value
VOC Content	Definition	0.0 g/l
Viscosity @ 77 °F (25 °C)	DIN 53019	490 - 830 mPa*s
Density @ 77 °F (25 °C)	ISO 2811	1.30 g/ml
Curing Time @ 68 °F (20 °C)		approx. 60 minutes
Elongation @ 75 °F (24 °C)	DIN EN ISO 527	> 280 %
Tensile Strength @ 75 °F (24 °C)	DIN EN ISO 527	> 10.0 MPa
Shore A Hardness	DIN EN ISO 868	87
Shore D Hardness	DIN EN ISO 868	35
Dynamic Crack Bridging @ -13 °F (-26 °C)	ASTM C 1305	≥ 3.2 mm

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

Packaging

- 6 US gal/pail

Installation

Surface Preparation

- Prior to applying Matacryl Manual, a suitable Matacryl Primer, including sanding when appropriate, must be applied.
- To prime, substrates must be dry, firm, solid and free of dust, grease, oil, and loose particles, usually by shot or sand blasting to attain correct surface profile. Newly poured concrete must have reached adequate strength to receive Matacryl system.

Installation

Mixing

- Prior to use, Matacryl Manual must be carefully stirred to achieve uniform distribution of the paraffin in the product, normally a minimum of three (3) minutes.
- Matacryl Manual is thoroughly mixed together with Matacryl Reactive Filler (25 % dibenzoyl peroxide) or Matacryl Catalyst (50 % dibenzoyl peroxide), in accordance with the following guidelines. The amount of initiator powder to be added depends on the substrate temperature.

Temp F	Temp C	Matacryl Reactive Filler	Matacryl Catalyst	Matacryl Accelerator
86 °F	30 °C	2 % by weight of resin	1 % by weight of resin	n/a
68 °F	20 °C	4 % by weight of resin	2 % by weight of resin	n/a
50 °F	10 °C	8 % by weight of resin	4 % by weight of resin	n/a
32 °F	0 °C	10 % by weight of resin	5 % by weight of resin	n/a
<32 °F	<0 °C	12 % by weight of resin	6 % by weight of resin	1-3 % by weight of resin

Note: For safety reasons, Matacryl Accelerator must be added to reactive resin PRIOR to adding any initiator. See TDS Matacryl Accelerator for more details.

Application

Matacryl Manual is manually applied using a roller or squeegee. For the consumption of product per m², please consult the System Build Up Sheets. Per layer of membrane, a minimum thickness of 1 mm (= 1.3 kg/m²) should always be applied. If extending an existing Matacryl application, the new membrane should overlap by a minimum of 50 mm.

- Do not apply when surface temperature is above 104 °F (40 °C) and/or rapidly rising. Special care must be observed if area is exposed to direct sunlight.
- Substrate temperature must be at least 3° over actual dew point and rising.

The techniques involved may require modification to adjust to job-site specific conditions. Consult your Tremco Infrastructure Sales Representative or Tremco Technical Services for site conditions and requirements. For further installation details, see our General Preparation and Application Guidelines for “Matacryl Systems”.

Limitations/ Shelf Life

One (1) year when stored in a dry place in original, closed packaging. Optimal storage temperature: 60 to 70 °F (15 to 20 °C)

Warranty

Tremco warrants its Products to be free of defects in materials but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE with respect to Tremco Products. Tremco’s sole obligation shall be, at its option, to replace or to refund the purchase price of the quantity of Tremco Products proven to be defective, and Tremco shall not be liable for any loss or damage.

Please refer to our website at www.tremcoinfrastructure.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.