EDITION: 280724

Technical Data Sheet

Matacryl® STC

UV & CHEMICAL RESISTANT SEALER TOP COAT FOR MATACRYL WATERPROOFING SYSTEMS

HYCHEM Infrastructure

Product Description

Matacryl® STC is a medium viscosity, elasticized and UV resistant surface sealer based on acrylic resins. Improves general r esistance and maintenance properties and is available as **Clear or Pigmented** in a range of colours. It is part of an innovative waterproofing system that supports tight completion timelines of projects and ensures long-term performance and resilience.

It can be applied at a range of ambient and substrate temperatures from -20°C to 35°C over resin with aggregate membranes and onto cementitious based screeds, concrete, filled bitumen/asphalt, metal, ceramic tile and wood substrates.

Features and Benefits

- Fully cured one hour after application
- Rapid cure allows quick installation, regardless of temperature, enabling wintertime installations
- Excellent adhesion to a variety of substrates
- Semi-flexible
- Easy to apply using a roller or squeegee
- Excellent chemical and abrasion resistance
- UV and weather resistant

Waterproofing Applications

- Bridge decks (concrete and steel)
- 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 and dam structures
- Containment structures including waste and contaminated material storage

CE 1119	
Universal Sealants (UK) Ltd, Kingston House, 3 Walton Road, Pattinson North, District 15, Washington, Tyne & Wear. NE38 8QA 13 1119-CPR-1190	
EN 1504-2 Surface protection system Coating	
Abrasion Resistance (Taber Test)	<3000 mg
Permeability to CO_2	S_D > 50 m
Capillary Absorption & Permeability to Water	<0.1 kg/m^2.h$^{0.5}$
Resistance to Severe Chemical Attack	Class II
Impact Resistance	Class I
Adhesion Strength by Pull-Off Test	≥2 MPa
Reaction to fire	Efl

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Technical Data*

PROPERTY	TEST METHOD	VALUE
Viscosity @ 25°C	DIN 53019	190-270 mPa.s Pigmented 130-170 mPa.s Clear
Density @ 25°C	ISO 2811	1.1 g/ml Pigmented 0.98 g/ml Clear
Curing Time @ 20°C		approx. 60 minutes
Elongation @ 24°C	DIN EN ISO 527	>100% Pigmented >190% Clear
Tensile Strength @ 24°C	DIN EN ISO 527	>8 MPa Pigmented >7.5 MPa Clear
Shore A Hardness	DIN EN ISO 868	85 Pigmented 87 Clear
Shore D Hardness	DIN EN ISO 868	41 Pigmented 32 Clear

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

INSTALLATION INSTRUCTIONS

Surface Preparation

- To prime, substrates must be dry, firm, solid and free of dust, grease, oil, and loose particles, usually by shot or sand blasting to achieve the correct surface profile. Newly poured concrete must have reached adequate strength to receive Matacryl system.
- Substrate moisture content should be <6%
- Prior to applying Matacryl STC to concrete, a suitable Matacryl Primer, including sand-scatter when appropriate, must be applied.
- For membrane with aggregate surfaces, resin must be completely cured and all loose aggregate or flakes must be removed, prior to application of Matacryl STC.

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Mixing

- Prior to use, Matacryl STC must be carefully stirred to achieve uniform distribution of the paraffin in the product, normally a minimum of three (3) minutes.
- Using a variable speed drill with helical stirrer, Matacryl STC 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 Matacryl Reactive Filler/Matacryl Catalyst to be added depends on the substrate temperature.

TEMP °C	MATACRYL REACTIVE FILLER	MATACRYL CATALYST	MATACRYL ACCELERATOR
<0	12% by weight of resin	6% by weight of resin	1-3% by weight of resin
0	10% by weight of resin	5% by weight of resin	n/a
10	8% by weight of resin	4% by weight of resin	n/a
20	4% by weight of resin	2% by weight of resin	n/a
30	2.2% by weight of resin	1.1% by weight of resin	n/a

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

Application

Immediately after mixing with the catalyst, Matacryl STC is manually applied and spread onto the Matacryl base coat using a roller or squeegee. Consumption of Matacryl STC depends on the system and varies from 0.33 to 0.88kg/m^2. Layer thickness must be kept within 0.3 to 0.8 l/m^2.

- Do not apply when surface temperature is above 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°C above actual dew point and rising.

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

Cleaning

Clean all mixing equipment and tools regularly and immediately after use with Acetone.

Packaging

Matacryl STC is available in 20kg pails Pigmented and Clear or 180kg drums Clear only
BPO hardener catalyst is available as 25kg box
Both above parts are required
Acetone is available in 20 litre drums

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Storage

Shelf life is 12 months for resin and 6 months for BPO when stored in original unopened packs in a cool and dry place.
The date of manufacture is given on the label.
Storage temperature between 5°C and 40°C out of direct sunlight. Optimal storage temp: 15°C to 20°C.
Flash point + 12°C.
Protect from frost, adverse weather and moisture / contaminant ingress.

Health and Safety

Suitable protective clothing, gloves and safety goggles must be worn during mixing and application.

In case of contact with eyes rinse immediately for a long period of time and consult a physician. In case of contact with skin clean immediately with water and soap.

Highly flammable; keep away from heat and all sources of ignition and do not smoke. All electric appliances used on the application site must be explosion-proof versions.

For further information see our Material Safety Data Sheet. Safety Data Sheets (SDS) are available from USL and are provided to help customers satisfy their safe handling, use and disposal needs as well as assist with any conformance requirements made locally by health and safety regulations.

SDS are continually updated to provide the latest information to our customers. We therefore recommend contacting our head office to obtain the most recent and accurate SDS before handling and using any product

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