

## PRODUCT DESCRIPTION

TREMproof® Micorea S5 is 100% solids, flexible, two-component spray applied hybrid polyurea system designed for waterproofing and coating application for concrete, metal and other substrates. It cures quickly allowing rapid installation and a seamless durable waterproof coating system.

## BASIC USES

TREMproof® Micorea S5 is applicable to wide varieties of application on different substrate as Concrete, metal, plastics and others with appropriate primer as recommended by Stoncor Middle East LLC.

- Roof & Terraces
- Roof Gardens
- Stadium, Service Roofs,
- Podium, Refuge, Balconies
- Cut-n-Cover Tunnels, Retaining walls
- Water Structures, Swimming Pool & water features

## FEATURES AND BENEFITS

- Fast return to service
- Excellent impact, abrasion, and puncture resistance
- Seamless and easy to detail.
- Enhances durability of concrete
- Waterproofing and low permeability
- High Crack bridging ability
- Wide temperature application range
- Can be left exposed with Topcoat (TREMproof TC)

## AVAILABILITY

Contact local Stoncor Middle East sales representative.

## COVERAGE RATE

1.055kg/m<sup>2</sup> per mm thickness (without wastage). Recommended thickness is 1.5mm to 2.0mm depending on the type of application area. Higher coverages are applicable as per technical requirement.

\*Wastages to be considered extra

## PACKAGING

PART A: 220 KG Drum ; PART B: 200 KG DRUM

## SHELF LIFE

12 Months under proper covered storage. In unopened drums away from direct sunlight and dry at 25°C Temperature.

## WARRANTY

Please refer to Stoncor Middle East Warranty guidelines.

## LIMITATIONS

- Do not apply to any contaminated substrates
- Use with adequate ventilation & PPE
- For exposed application, care should be taken to avoid rainfalls within 1 hour of application.
- For Exposed application, the Topcoat (TREMproof TC) shall be applied within 48 hours of application.

## BASIC APPLICATIONS INSTRUCTIONS

### Substrate Preparation

All surfaces must be clean, dry and free from contaminants.

#### Concrete

New concrete must be fully cured for 28 days with the moisture content <4%. The concrete should have a minimum compressive strength of 25N/mm<sup>2</sup> and a cohesive strength of 1.5N/mm<sup>2</sup>. The surface must be clean, dry and completely free of all contaminants like oil, grease and other surface coatings. The concrete surface must be prepared mechanically by using grit/captive blasting or scarifying equipment to remove the laitance and other deleterious materials to achieve the required textured surface. Defective areas such as blow holes and voids must be repaired and filled by an epoxy-based repair putty

#### Steel Substrate

Use grit blasting to remove all traces of rust from the metal surfaces. Any holes or broken edges should be welded and repaired.

#### Priming

Apply TREMprime EP1 / TREMPROOF PU PRIMER / Carboguard 1340/ Carboline 193 TL as recommended by Stoncor Middle East LLC. for specific conditions. Please consult the relevant technical datasheets for each primer to understand their coverage and other details. To enhance the adhesion properties, broadcast fire-dried quartz sand onto the wet primer.

## RECOMMENDED INSTALLATION EQUIPMENT

A high pressure, plural component, Spray proportioning heated polyurea reactor shall be used of make GRACO, Wiwa, and Gama and others, as approved by Stoncor Middle East LLC.

## PROCESSING PARAMETERS

Preheating of liquid Components	35°C to 55°C
Heating temperature of Part A & B hose	70°C to 80°C
Output Pressure of Part A & Part B	2000 to 2500psi (Difference between A & B should not exceed 300psi)
Hose temperature of Part A & Part B	70°C ± 5°C
Mixing ratio by Volume	1:1
Spray angle width	40° to 80°
Swing range of spray	Max 120cm
Relative humidity	<85%

All hoses, spray equipment and gun shall be flushed cleaned by recommended cleaning solvent prior to application to remove all impurities. Mix Part B well before spraying and the stirring process shall continue during the entire process of spraying.

Application of TREMproof Micorea S5 shall be conducted between 5°C to 40°C and should be done during falling temperatures. This will avoid the development of pinholes due to outgassing from the concrete surface.

Spray apply TREMproof Micorea S5 coating continuously on both the horizontal and vertical surfaces in multilayers to achieve the required thickness (1mm to 2mm). Each layer shall be applied at a thickness of 0.25mm to avoid sagging on vertical surfaces. Subsequent layers shall be sprayed within 15-20 seconds of application of the previous layer.

In situations where multilayer application gets delayed or interrupted, application of TREMproof Micorea S5 can start again after the previous applied surface is cleaned thoroughly of all accumulated dust. A re-coat of TREMproof Micorea S5 is required when the application is delayed for more than 48 hours.

## TYPICAL TECHNICAL PROPERTIES

Properties	Test Method	Value	
		Part A	Part B
Color & Consistency	-	Brownish Liquid	Amber Liquid
Density @25°C, (g/l)	EN ISO 2811-1	1.09±0.1	1.02±0.1
Viscosity @25°C, (cps)	EN ISO 2555	800±100	500±100
Mixed Density @25°C, (g/l)	EN ISO 2811-1	1.05±0.1	
Solid content by volume, (%)	-	100	
Gel time (Pot life) @25°C, (secs)	ASTM D 7487	5	
Tack free time @25°C, (secs)	ASTM D 7487	15	
Trafficable time, (mins)	ASTM D 7487	40	
Curing Time, (Days)	ASTM D 7487	7	
VOC, (g/l)	ASTM D 3960	0	
Shore A Hardness	ASTM D 2240	80	
Tensile strength, (N/mm <sup>2</sup> )	ASTM D 412	≥13.5	
Elongation, (%)	ASTM D 412	≥500	
Tear strength, (N/mm)	ASTM D 624	≥48	
Crack Bridging ability, (mm)	ASTM C 1305	≥3.0	
Resistance to Impact, (kg. m)	ASTM D 1709	1.0	
Adhesion strength, (N/mm <sup>2</sup> ) Concrete Steel	ASTM D 4541	≥2.0 ≥2.0	
Resistance to Hydrostatic pressure, (psi)	ASTM D 5385	100	
Temperature resistance, (°C)	-	Up to 240 (Max)	
Service temperature, (°C)	-	-30 to 125	

## CHEMICAL RESISTANCE

Sulfuric acid @10%	Resistant. No change
Diesel	Resistant. No change
Petrol	Resistant. Slight Discoloration
Motor oil	Resistant. Discoloration
Sodium chloride @30%	Resistant. No change
Sodium hydroxide @50%	Resistant. No change
Tartaric acid @50%	Resistant. No change
Lactic acid	Resistant. No Change
Citric acid	Resistant. No Change
Urea solution (Conc.)	Resistant. No Change
Phosphoric Acid @10%	Resistant. No Change
Hydrochloric acid @20%	Resistant. Slight Discoloration
Nitric acid @30%	Resistant. Discoloration
Sugar solution	Resistant. No Change
Bleach @5%	Resistant. Slight Discoloration
Butanol	Resistant. Slight Discoloration
Ammonia @30%	Resistant. No Change

*The values achieved in controlled Laboratory condition after 14days curing. Test results may vary for site applied samples as the quality of sample preparation depends on the spray equipment, working pressure, surface and ambient temperatures, the weather condition, and the thickness of the film.*