

# MARK-171

Waterproofing System for Parking Structures

Please use this Technical Data Sheet (TDS) in conjunction with this product's country-specific Safety Data Sheet (SDS) and the Safe Use conditions as described therein. Current Safety Data Sheets can be requested from Olin POLY-CARB at customerservice@poly-carb.com.

**Description**                      **100% solids two part epoxy for skid resistance and waterproofing.**

**Introduction**                      **MARK-171** is a solvent free multi-polymer waterproofing system designed to provide a long lasting and reliable maintenance-free, skid, impact, and abrasion resistant surface for concrete structures. The final surface is a uniformly placed 55-500 mils thick system applied in 2 layers with exposed aggregate. **MARK-171** has been specially designed to protect concrete decks and to allow repair and rehabilitation of scaling, spalled and deteriorated concrete.

**Typical Applications**                      Waterproofing coatings for parking garages, structural repair of concrete, improving skid resistance on ramps and drive lanes, pedestrian walkways and bridges, as well as balconies and driveways.

**Typical Properties**                      **Properties of MARK-171 Part A and Part B**

	<u>PART A</u>	<u>PART B</u>
Color	Light Amber	Dark Amber
Mixing Ratio	2 volumes	1 volume
Percent Solid	100%	100%
Shelf Life	2 year	2 year

**Properties of mixed MARK-171 Part A and Part B**

Color	Amber	
Gel Time 25°C (75° ± 2°F)	25-35 minutes	ASTM C-881
Initial Set 25°C (75° ± 2°F)	4-5 hours	ASTM D-1640
Final Cure 25°C (75° ± 2°F)	48 hours-7 days	
Adhesion to concrete	100% Failure	ASTM D-4541
Shore D Hardness	>70	ASTM D-2240
Compressive Strength	7 days	7000-9000 psi
		ASTM C-109
Tensile Strength	>2500 psi	ASTM D-638
Tensile Elongation	30±10	ASTM D-638
Water Absorption - Max.	<.2%	ASTM C-501
Abrasion Resistance - Wear Index CS-17 Wheel,1000 cycle,1000 gms	< 100 milligrams	ASTM C-501
Flexural Creep at Low Temp.	.165 mm, min	CA Test 419
Flexural Yield Strength.	>5000 psi	ASTM D-790

## Coverage

### MARK-171

Thickness	1 <sup>st</sup> Coat	2 <sup>nd</sup> Coat	Aggregate (Both Layers)
55-70 mils (medium duty)	64-45 SF/GAL	53-40 SF/GAL	To Saturation
65-120 mils (heavy duty)	53-30 SF/GAL	45-25 SF/GAL	To Saturation

1 Gallon = ~231 cubic inches

According to the requirements it is possible to build up to ½ inches in thickness.

A 10-20 mil finish coat is recommended to encapsulate the aggregate and to provide an aesthetic finish. POLY-CARB's **MARK-170.2 Finish Coat** is recommended for this layer.

## Packaging

### MARK-171

- |                              |                            |
|------------------------------|----------------------------|
| • Liquid                     | Combined:                  |
| 946.3ℓ (250 gallon) tote     | 1892.5ℓ (500 gallons) unit |
| 189.2ℓ (50 gallon) container | 378.5ℓ (100 gallon) unit   |
| 18.9ℓ (5 gallon) container   | 37.8ℓ (10 gallon) unit     |

## Clean Up

Cleaning of all equipment and tools is recommended before the gel time of the system expires. **MARK-305** is specially designed for this purpose. A lacquer solvent or xylol can also be used for the same purpose.

## Limitations

- Should not be used over magnesium phosphate patching material.
- Use washed and dried aggregate only.
- At the time of application, the substrate and air temperature should be at least 5°C(40°F) and expected to rise to 10°C(50°F) or above.
- Do not thin the **MARK-171** with any solvent as this will prevent proper curing.
- Excessive moisture on the surface at time of application can interfere with proper bonding of the material to the substrate.

Contact information:

1-330-405-3311

1-800-225-5649

[www.poly-carb.com](http://www.poly-carb.com)

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