REMR MATERIAL DATA SHEET CM-SE-1.68
CONCRETE SEALER: SIKAPRONTO 19

1. NAME

SikaPronto 19

2. MANUFACTURER

Sika Corp.
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Lyndhurst, NJ 07071
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3. DESCRIPTION

SikaPronto 19 is a high molecular weight methacrylate (HMWM) which is used to seal cracks in concrete by topical application. It will also serve as a surface sealer for concrete. The material is packaged in 1 and 5 gal containers and is a two-component system composed of a HMWM monomer (component A) and an initiator (component B).

4. APPLICABLE SPECIFICATIONS

None

5. USES

SikaPronto 19 structurally repairs cracked concrete by topical application and seals the surface of concrete from water and salts. It can be used on horizontal decks, slabs, patios, driveways, parking garages, pavement, and other concrete surfaces exposed to traffic. The material is not designed to seal cracks subject to hydrostatic pressure or working cracks.

6. MANUFACTURER'S TECHNICAL DATA

Properties	Test Method	Results
Viscosity, cps	Brookfield RVT	25
Compressive strength, psi	ASTM D 695	
1 hr		1,000
2 hr		2,700
1 day		3,500
7 days		4,300
Flexural strength, psi, a day	ASTM D 790	2,500
Bond strength, psi	ASTM C 882	
2 day (dry cure)		2,100
14 day (moist cure)		2,300
Flash point, °F		>200
Gel-time, min		20

7. MANUFACTURER'S GUIDANCE FOR APPLICATION

Surface preparation: The concrete substrate must be clean, sound, and free of surface moisture. Dust, laitance, grease, oils, curing compounds, waxes, coatings, and disintegrated materials must be removed by mechanical means, sandblasting, or shotblasting. For best results, the substrate should be dry. However, a saturated surface dry condition is acceptable.

Mixing: The units of the material are proportioned at the plant, and the manufacturer recommends mixing the entire unit. Empty entire contents of "B" Component into pail containing the "A" Component. Mix for 3 min with a low-speed drill (400 to 600 rpm) and Sika paddle. Mix only that quantity that can be placed within the pot life.

Application: The ambient and substrate temperature should be greater than 35 °F and rising before applying the material. The material is applied to horizontal surfaces by paint roller or squeegee. Squeegees can be used to spread the material followed with a paint roller for removing the material in low areas. Apply the material at a rate of 150 to 200 ft^2/gal. The rate of application will vary depending on the surface texture, number of cracks, and the porosity of the concrete. A second treatment may be required on very porous substrates or severely cracked concrete. Spread material over area and allow to pond over cracks. Let material penetrate into cracks and substrate; remove excess, leaving no visible film or a very thin film. Fill cracks wider than 1/8 in. with dry sand before application. Seal cracks from underside, when accessible, to prevent leakage.

For skid resistance, a sand is broadcasted over the material before it has hardened. Wait at least 30 minutes at 73 °F before broadcasting sand on the treated surface. The sand (8-20 blasting sand or equivalent) is applied at a rate of 1-2 lb/yd. Do not exceed 2 hours at 73 °F before broadcasting. Allow the material to cure 12-16 hours at 73 °F before opening to traffic. The cure time will depend on the temperature and the material should be dry to touch. Remove any loose sand before opening to traffic.

8. CORPS OF ENGINEERS' EVALUATION

Properties	Test Method	Results
Viscosity, 23 °C, cps	ASTM D 2393 Brookfield RVT	34
Gel-time, 23 °C, 200 g mass, minutes	ASTM C 881	21
Bond strength, psi	ASTM C 882	2,160
Flash point, °F	ASTM D 93	>200
Reduction in water absorption, % of control*-1		95
Ability to fill narrow cracks*-2		Excellent

*-1 Four-inch concrete cubes were coated with the material at an application rate of 125 ft^2/gal. The coated concrete cubes along with uncoated concrete cubes were then soaked under water for 24 hr and the water absorption of each measured.

*-2 The material was spread on top side of a 3-in.-thick concrete prism that contained narrow cracks (0.01 in.). After 8 min, the excess was removed and the specimen allowed to cure for at least 3 days. The specimens were cut into sections through the cracks and examined to determine if they were filled.

9. ENVIRONMENTAL CONSIDERATIONS

Reasonable caution should guide the preparation, repair, and cleanup phases of sealant activities involving potentially hazardous and toxic chemical substances. Manufacturer's recommendations to protect occupational health and environmental quality should be carefully followed. Material safety data sheets should be obtained from the manufacturers of such materials. In cases where the effects of a chemical substance on occupational health or environmental quality are unknown, chemical substances should be treated as potentially hazardous toxic materials.

10. AVAILABILITY AND COSTS

Available from manufacturer and distributors of Sika materials. Cost of 1 gal of the material is approximately $65.00 plus shipping.