

CRACKMASTER 3405 LM

Hot Pour Crack Sealant

SMT-194

REVISED 3/20/23

PRODUCT DESCRIPTION

CrackMaster 3405 LM is a single component, low-modulus, hot applied crack and joint sealant specifically designed for low temperature flexibility down to -40°F. When melted and properly applied it forms a resilient crack sealant for both asphaltic and cementitious pavements. Meets State Modified ASTM D3405, and ASTM-D6690 TypeIV. Exceeds ASTM-D1190, AASHTO-M173, Fed. Spec. SS-S-164 and AASHTO M301.

USES

CrackMaster 3405 LM is designed to seal expansion joints, longitudinal and transverse cracks, joints between concrete and asphalt shoulders, and random cracks in both asphalt and concrete pavements.

COMPOSITION

As supplied, CrackMaster 3405 LM is supplied in solid blocks comprised of asphaltic resins and synthetic polymer rubber.

COLOR

Black.

LIMITATIONS

Do not overheat material. Cracks must be free from moisture prior to application.

TECHNICAL DATA

CrackMaster 3405 LM meets the following material requirements when tested in accordance with State Modified ASTM D3405, and ASTM-D6690 Type IV, ASTM-D1190, AASHTO-M173, Fed. Spec. SS-S-164 and AASHTO M301. (see chart below).

Chemical & Physical Analysis	
Recommended Pour Temperature	350-375°F
Maximum Heating Temperature	400°F
Cone Penetration at 25°C	90-150
Softening Point °C (°F)	80°C (176°F) Min.
Resiliency	60% Min.
Flow at 140°F (5h)	3 mm Max.
Bond, Non-immersed	Three 12.7 mm Specimens pass 3 cycles at 200% ext. at -29°C
Specific Gravity	1.14
Asphalt Compatibility	PASSES
Viscosity @ 370	10 ± 10 cps

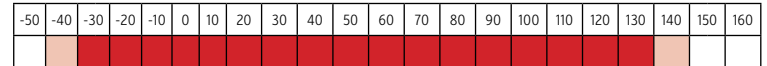
ENVIRONMENTAL CONSIDERATIONS

CrackMaster 3405 LM is considered a non-hazardous material.

INSTALLATION

Proper surface preparation will facilitate adequate adhesion and consequently the maximum service life

Geographical Performance of CrackMaster 3405 LM Pavement Temperatures (Fahrenheit)



Scale: Recommended Limited Not Recommended

of the sealant. The crack must be free from moisture, dust, and loose aggregate. Routing or wire brushing are preferred methods followed by a compressed air heat lance immediately prior to sealing. The substrate and air temperature must be above 40°F.

METHODS

CrackMaster 3405 LM shall be melted in a conventional oil-jacketed unit equipped with an agitator and temperature control device for both material and heat transfer oil. Carefully insert blocks of material (with plastic bag) into melting equipment with agitator turned off. Load material slowly to avoid splashing. After the initial load of material has reached the recommended pouring temperature (350-375°F), fresh material may be added as sealant is used. Melt only enough material that will be used the same day. Avoid overheating material. Excessive heat could cause material to gel in the equipment to fail in crack and joints. A significant viscosity increase accompanied by stringiness signals the approach of gelation. If this occurs, immediately remove the material from the melter and dispose of it.

IMPORTANT

Protective apparel is recommended with application of CrackMaster 3405 LM. The extremely hot material will cause severe burns on contact with skin. OSHA Safety Regulations require workers to wear the following types of safety attire (see current OSHA/Safety Regulations for additional information): Hard hat with face shield; long sleeved shirt buttoned at the wrist; heat resistant gloves; long, cuffless pants; and safety toed work boots. Make certain all area around melter is clear of all debris and flammable materials. Avoid breathing vapors. Use with adequate ventilation.

MIXING PROCEDURES

Use material as supplied. Do not blend with other materials. After CrackMaster 3405 LM is melted it should be agitated or recirculated.

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APPLICATION

Apply heated CrackMaster 3405 LM using either a pump and wand system or a pour pot. For best results the sealant depth to width ratio should not exceed 2 to 1 (i.e. 2-inches deep to 1-inch wide). The cooled sealant height should not exceed 1/8" above surrounding pavement. Using a sealing shoe or squeegee, band the material 2 to 3 inches wide over the crack. Use material as supplied. Do not blend with other materials. After CrackMaster 3405 LM is melted it should be agitated or recirculated.

ESTIMATING MATERIAL REQUIREMENTS

Use the following chart as a guideline for estimating material requirements (based upon pounds of material needed for 100 feet of cracks):

Crack Width	Depth	Lbs/100 Ft
3/8"	3/8"	6.9 lbs.
3/8"	1/2"	9.3 lbs.
1/2"	1/2"	12.3 lbs.
1/2"	1"	24.7 lbs.
3/4"	1/2"	18.5 lbs.
3/4"	3/4"	27.8 lbs.

The above coverage rates are only a guideline. Actual material usage may vary due to width of application and thickness of material above pavement surfaces.

PRECAUTIONS

Cracks must be free from moisture, dust, dirt, and debris. Both substrate and air temperature must be above 40°F. Keep boxes of material dry during storage. Do not store in direct sunlight.

PACKAGING AND AVAILABILITY

CrackMaster 3405 LM is supplied in both meltable packaging and cardboard cartons. CrackMaster Hot Pour Crack Sealants are supported by a nationwide network of SealMaster facilities along with a national and international network of professional applicators.

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