

CRACKMASTER BRIDGE JOINT MASTIC - CPT

SMT-271

Formulated for All Climates

REVISED 07/06/23

PRODUCT DESCRIPTION

CrackMaster Bridge Joint Mastic - CPT is a hot-applied, pre-packaged material formulated for use in bridge deck expansion joints. The product consists of a polymer-modified binder and select aggregate in one box, pre-measured and ready for jobsite use. The application of the material creates a durable, waterproof, flexible bond with a smooth surface transition.

- No Field Blending
- Easy to Apply
- Highly Durable
- Maximum Flexibility
- For Asphalt and Concrete
- Cost Effective

RECOMMENDED USES

CrackMaster Bridge Joint Mastic - CPT is intended for use in exposed concrete or asphalt overlaid bridge decks, as a replacement for existing small movement expansion devices or as a new installation, small movement joint. According to ASTM D6297, use is limited to applications where joint width movement does not exceed 1 inch (25 mm) from the installation width. The standard block-out dimensions are 2 to 8 inches (5 to 20 cm) deep and 20 to 24 inches (51 to 61 cm) wide. Do not install in excessive skew, incline, or severe stop-and-go configurations.

Ideal Uses:

- Bridge Deck Expansion Joints and Approaches
- Fixed End Joints
- Pressure Relief Joints
- New construction or Rehabilitation

PERFORMANCE CHARACTERISTICS

Product Specifications*		
Softening Point		181 °F (83 °C) Min.
Tensile Adhesion		700% Min.
Ductility	77 °F (25 °C)	400 mm Min.
Penetration	77 °F (25 °C)	75 dmm Max.
Penetration	0 °F, 200 g, 60 s	10 dmm Min.
Flow	140 °F (60 °C), 5 hrs.	3.0 mm Max.
Resiliency	77 °F	40 - 70%
Asphalt Compatibility		Pass
Application Temperature		360 - 390 °F (182 - 199°C)
Bond	19°F (-7°C), 100% elongation	Pass 3 Cycles
Low Temperature Flexibility	1/4" Mandrel Bend at -9 °F (-23 °C)	Pass

* Specifications are as tested according to ASTM D36, D3529, D113, and D6297.

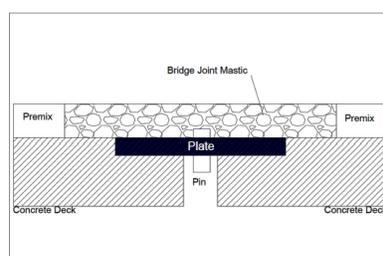
SPECIFICATIONS

Meets ASTM D 6297

COVERAGE

Width	Depth	Pounds/Linear Foot
20"	2"	38.2
20"	8"	152.6
22"	2"	42.0
22"	8"	167.9
24"	2"	45.8
24"	8"	183.1

BRIDGE JOINT DIAGRAM



GRANITE AGGREGATE (68% Min.)

Screen Size, inches	Passing, %
1	100
1/2	90 to 100
1/4	0 to 40

SURFACING AGGREGATES

CrackMaster Topping Aggregate is available in both 1/8 inch size and 1/4 inch size with a maximum abrasion loss of 35% (ASTM C 131).

SURFACE PREPARATION

CrackMaster Bridge Joint Mastic - CPT should be installed in joints that have been properly constructed and/or repaired to produce vertical sidewalls and a level bottom. All joint surfaces should be dry and free from dust, dirt, grease, loose materials and any other matter that will inhibit bonding. Backer rods should be installed in the deck gap followed by an application of CrackMaster Bridge Joint Adhesive - CPT to the prepared surface area. A steel or aluminum bridging plate is then embedded, centered in the joint, into the hot joint adhesive. The joint adhesive is then troweled over the plate and onto all remaining uncoated vertical sidewalls and horizontal surfaces.

MELTING

The material should be heated in an oil-jacketed melter with full-sweep, horizontal-shaft paddle agitation. Agitation should begin as soon as the material is melted sufficiently for the agitator to turn. Additional material can then be added to the melter. Heating and agitation should continue until all added material has been mixed and is between 350-400°F (193-204°C). When adding additional material, the agitator must be stopped. After the additional material is added, agitation is to be immediately resumed and application should not resume until required temperatures are reached and all added material has melted and is well mixed with no uncoated aggregate. During application and while product is hot, agitation should be continuous (except when adding additional material) to guard against aggregate settlement. For best performance, it is recommended that the melter be emptied or only small amounts of be left in the melter.

APPLICATION

After proper surface preparation, CrackMaster Bridge Joint Mastic - CPT is placed into the joint in a layer no greater than 2 inches deep and allowed to air cool to 140°F or below prior to placing next layer. The final layer should be leveled smooth with the adjacent pavement. Mastic may be covered with CrackMaster Topping Aggregate for additional skid resistance. When the surface has cooled to 225-250°F (107-121°C) as measured by an infrared thermometer, immediately apply CrackMaster Topping Aggregate by broadcasting at the rate of approximately 3 lbs. per lineal foot depending on the width of the joint. The roadway is ready for traffic as soon as it cools. Do not apply when pavement temperature is below 40°F (4°C). Note: The temperature of the heating oil should not exceed 525°F. Do not heat material over the maximum heating temperature. This could cause the material to gel in the equipment or fail on the pavement. 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.

PACKAGING

CrackMaster Mastic products are packaged in 30 lb. poly-bags in a high-strength corrugated box. Each pallet contains 75 boxes or 2,250 pounds of CrackMaster product.

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