

DURA-FILL® Bridge Joint Mastic

Formulated for All Climates

Description: *Dura-Fill* Bridge Joint Mastic is a pre-packaged, hot-applied material for bridge deck expansion joints. It meets ASTM D 6297 standards, offering a durable, waterproof, and flexible bond with a smooth surface transition. The product includes a polymer-modified binder and granite aggregate, conveniently pre-measured for jobsite use.

Recommended Uses: *Dura-Fill* Bridge Joint Mastic is suitable for exposed concrete or asphalt overlaid bridge decks. It can replace existing small movement expansion devices or be used for new installations of small movement joints. Application is limited to joints with movement up to 1 inch (25 mm) as per ASTM D 6297. Standard block-out dimensions are 2 to 8 inches (5 to 20 cm) deep and 20 to 24 inches (51 to 61 cm) wide. Avoid installation in excessive skew, incline, or severe stop-and-go configurations.

Surface Preparation: Ensure proper construction and/or repair of joints for vertical sidewalls and a level bottom. The joint surfaces should be dry, clean from dust, dirt, grease, and loose materials. Install backer rods in the deck gap, followed by applying *Dura-Fill* Bridge Joint Adhesive to the prepared surface. Embed a steel or aluminum bridging plate centered in the joint with hot joint adhesive. Trowel the joint adhesive over the plate and all uncoated vertical sidewalls and horizontal surfaces.

Melting: Heat the material in an oil-jacketed melter with horizontal-shaft paddle agitation. Start agitation once the material is sufficiently melted. Additional material can be added to the melter, ensuring heating and agitation until all added material is mixed and reaches a temperature of 350-400°F (193-204°C). During application, maintain continuous agitation to prevent aggregate settling. It is recommended to empty the melter or leave only small amounts of material.

Application: After surface preparation, place *Dura-Fill* Bridge Joint Mastic into the joint up to a maximum depth of 2 inches. Allow it to air cool to 140°F or below before adding the next layer. Level the final layer smoothly with the adjacent pavement. For improved skid resistance, apply *Dura-Top*™ aggregate on top of the final layer. Spread *Dura-Top* aggregate at a rate of approximately 3 lbs. per lineal foot, depending on the joint width, once the surface temperature reaches 225-250°F (107-121°C) as measured by an infrared thermometer. The roadway is ready for traffic once the mastic has cooled. Do not apply *Dura-Fill* Bridge Joint Mastic when the pavement temperature is below 40°F (4°C).

Note: The temperature of the heating oil should not exceed 525°F. Avoid heating the material beyond the maximum temperature to prevent gelation. If gelation is detected, remove the material from the melter immediately. Refer to the *Dura-Fill* SDS and P&T Products' Warranty for more information.

Binder/Adhesive 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.

Granite Aggregate (68% Min.)

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

Surfing Aggregates

Dura-Top surface aggregates are available in both 1/8 inch size and 1/4 inch size with a maximum abrasion loss of 35% (ASTM C 131).

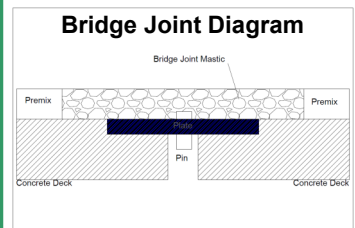
- ◆ No Field Blending
- ◆ Easy to Apply
- ◆ Highly Durable
- ◆ Maximum Flexibility
- ◆ For Asphalt and Concrete
- ◆ Cost Effective

Ideal Uses

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

Coverage

Width	Depth	Pounds/Lineal 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



Specifications

ASTM D 6297

Packaging

Dura-Fill Mastics are packaged in 45 lb. polybags in a high-strength corrugated box. Each pallet contains 64 boxes or 2,880 pounds of *Dura-Fill* product.

P&T Products

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