

401-R-581 JOINT ADHESIVE

(Revised 02-16-12)

The Standard Specifications are revised as follows:

SECTION 401, AFTER LINE 335, INSERT AS FOLLOWS:

Hot poured joint adhesive in accordance with 906 shall be applied to longitudinal joints constructed between 2 adjacent HMA courses in the top course of dense graded intermediate mixtures and all surface mixture courses. This includes joints within the traveled way as well as between any of the following: traveled way and an auxiliary lane, traveled way and a paved shoulder, and auxiliary lane and a paved shoulder.

The material shall be heated in a jacketed, double boiler melting kettle. The kettle shall have an attached pressure feed wand system with applicator shoe.

The joint adhesive shall be applied to the face of the previously constructed edge at the joint using a wand applicator. Prior to application of the joint adhesive, the joint face shall be dry and free of loose material and foreign objects. The adhesive shall be applied on the joint face 1/8 in. thick at the temperature recommended by the manufacturer. Excess joint adhesive shall not be allowed to pool on the top of the previously constructed pavement course or the pavement to be overlaid. The application of the adhesive shall be made within the same day, but at least 15 min prior to construction of the longitudinal joint.

All surface mixture longitudinal joints that have the joint adhesive applied shall be sealed using AE-F asphalt emulsion in accordance with 902.01(b). The sealing operation shall not begin until all density cores in accordance with 401.16 and 401.20 have been obtained and the installation of milled centerline corrugations, when specified, has been completed.

The liquid asphalt sealant, AE-F, shall be a minimum width of 24 in., centered on the joint line, and shall be extended, when necessary, to provide coverage beyond the edge of the corrugation. AE-F shall be applied at an application rate of 0.06 ± 0.02 gal./sq yd onto a dry surface, free of any foreign or loose material, using a distributor in accordance with 409.03(a). The ambient air and pavement temperatures at the time of application shall be greater than 32°F. Temporary pavement markings in accordance with 801.12 shall be offset a sufficient distance from the longitudinal joint so as to not obstruct the installation of the milled centerline corrugations or the application of the liquid asphalt sealant. The AE-F shall be cured a minimum of 5 days prior to applying the permanent pavement traffic markings in accordance with 808.

SECTION 401, AFTER LINE 745, INSERT AS FOLLOWS:

Joint adhesive will be measured by the linear foot in accordance with 109.01(a).

SECTION 401, AFTER LINE 759, INSERT AS FOLLOWS:

Joint adhesive will be paid for by the linear foot, complete in place.

SECTION 401, AFTER LINE 763, INSERT AS FOLLOWS:

Joint Adhesive, _____.....LFT
course type

SECTION 401, AFTER LINE 773, INSERT AS FOLLOWS:

The cost of the liquid asphalt sealant for the joint adhesive and centerline corrugations shall be included in the cost of the joint adhesive.

SECTION 906, AFTER LINE 95, INSERT AS FOLLOWS:

5. Hot Poured Joint Adhesive

Joint adhesive is a hot applied asphalt material that is used to seal the longitudinal construction joint formed between the adjacent HMA pavement courses.

Joint adhesive shall be in accordance with the following:

<i>Test</i>	<i>Method</i>	<i>Test Results</i>
<i>Softening Point, °F (°C)</i>	<i>AASHTO T 53</i>	<i>> 170 (77)</i>
<i>Ductility @ 77°F (25°C), mm</i>	<i>AASHTO T 51</i>	<i>> 300</i>
<i>Ductility @ 39°F (4°C), mm</i>	<i>AASHTO T 51</i>	<i>> 300</i>
<i>Apparent Viscosity @ 400°F (204°C), cp</i>	<i>ASTM D 2669</i>	<i>4,000 – 11,000</i>
<i>Asphalt Compatibility</i>	<i>ASTM D 5329</i>	<i>Pass</i>
<i>Cone Penetration @ 77°F (25°C), mm</i>	<i>ASTM D 5329</i>	<i>50.0 – 100.0</i>
<i>Flow @ 140°F (60°C), mm</i>	<i>ASTM D 5329</i>	<i>< 5</i>
<i>Resilience @ 77°F (25°C), %</i>	<i>ASTM D 5329</i>	<i>> 30</i>
<i>Tensile Adhesion @ 77°F (25°C), mm</i>	<i>ASTM D 5329</i>	<i>> 500</i>
<i>Flexibility @ 0°F (-18°C)</i>	<i>ASTM D 3111</i>	<i>Pass</i>
<i>Flash Point, °F (°C)</i>	<i>AASHTO T 48</i>	<i>> 410 (210)</i>

The joint adhesive will be accepted by type A certification in accordance with 916 for each batch or lot of material furnished.