

SECTION 02544
CRACK TREATMENT

PART 1 – GENERAL

1.01 SCOPE

- A. This specification covers the materials, equipment, construction and procedures for treating cracks in asphalt concrete pavement including shoulders and parking areas

PART 2 – PRODUCTS

2.01 GENERAL

- A. Crack treatment shall be hot-applied and conform to the table in part 2.02

2.02 MATERIALS/MIX DESIGN/TESTING

Crack Treatment Material

Quality Characteristic	ASTM Test Method ^a	Type 2 Material
Softening point (min.)	D 36	96 °C
Cone penetration at 77° F (max.)	D 5329	40
Resilience at 77° F, unaged, %	D 5329	25-65
Flexibility ^b	D 3111	0 °C
Tensile adhesion, %, (min.)	D 5329	400
Specific gravity (max.)	D 70	1.25
Asphalt compatibility	D 5329	Pass
Sieve test (percent passing)	See note c	100

Notes:

^a Except for viscosity, cure each specimen at a temperature of 23 °C ± 2 °C and relative humidity of 50 ± 10 percent for 24 ± 2 hours before testing.

^b For flexibility test, the specimen size must be 6.4 ± 0.2 mm thick x 25 ± 0.2 mm wide x 150 ± 0.5 mm long. Test mandrel diameter must be 6.4 ± 0.2 mm. Bend arc must be 180 degrees. Bend rate must be 2 ± 1 seconds. At least 4 of 5 test specimens must pass at the specified test temperature without fracture, crazing, or cracking.

^c For hot-applied crack treatment, dilute with toluene and sieve through a No. 8 sieve. If the manufacturer provides a statement that added components passed the No. 16 sieve before blending, this requirement is void.

If crack treatment material is delivered to the job site in containers, each container must be marked with the following information. If crack treatment material is not delivered in containers, the following information must accompany the delivery:

1. Manufacturer's name
2. Production location
3. Product brand or trade name
4. Product designation
5. Crack treatment trade name
6. Batch or lot number
7. Maximum heating temperature

8. Expiration date for cold application only

Hot-applied crack treatment must be delivered to the job site premixed in cardboard containers with meltable inclusion liners or in a fully meltable package.

PART 3 – EXECUTION

3.01 SURFACE PREPARATION

- A.** Treat cracks from 1/4 to 1 inch in width for the entire length of the crack. Fill or repair cracks wider than 1 inch as directed by the Engineer.
- B.** Cracks must be clean and dry before treating. Before treating, blast cracks with oil-free compressed air at a pressure of at least 90 psi.
- C.** If the pavement temperature is below 40 °F or if there is evidence of moisture in the crack, use a hot air lance immediately before applying crack treatment. The hot air lance must not apply flame directly on the pavement.

3.02 APPLICATION AND WORKMANSHIP

- A.** Heat hot-applied crack treatment material in compliance with the manufacturer's instructions. Comply with the manufacturer's application instructions.
- B.** Insert crack treatment with a nozzle inserted into the crack. Fill the crack so that it is recessed less than 1/4 inch.
- C.** Immediately remove crack treatment material spilled or deposited on the pavement surface.

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