

**Method of Test for Compatibility of
Hot Poured Rubber Asphalt Joint Sealer with Asphalt Concrete**

1. Scope:

This test covers the procedure for determining the compatibility of hot poured rubber asphalt joint sealer with asphalt concrete.

2. Apparatus:

2.1 An oven capable of maintaining a temperature of $140^{\circ} \pm 5^{\circ}\text{F}$.

2.2 Masonry saw.

2.3 A stiff bristled brush.

2.4 Cloth backed adhesive tape.

2.5 Knife.

2.6 A Marshall compaction machine, mold and rammer.

3. Procedure:

3.1 Prepare a specimen using proportioned aggregate and asphalt cement.

3.2 The specimen shall be molded in the Marshall Density apparatus. The minimum height of the specimen shall not be less than $2 \frac{3}{8}$ ".

3.3 Compaction of the specimen shall be in accordance with SD 313.

3.4 After cooling to room temperature, wet saw a groove $4" \times \frac{1}{2}" \pm \frac{1}{8}" \times \frac{3}{4}" \pm \frac{1}{8}"$ deep into the surface of the specimen, using a power driven masonry saw.

3.5 Hold the specimen under running water and scrub the groove with a stiff bristled brush, to remove all residue from sawing.

3.6 Allow the specimen to dry and return to room temperature. Wrap the specimen with tape or otherwise reinforce it to prevent slumping or collapse during the ensuing test period. Caulk the ends of the grooves to prevent leaking.

3.7 Prepare and heat the joint sealing compound to the manufacturer's recommended temperature and pour into the sawed groove, slightly overfilling the groove; however, do not allow any sealing compound to overflow onto the adjacent surface of the asphaltic concrete.

After the sealing compound has cooled to room temperature, remove any overfill of compound with a hot knife blade, so the sealing compound is even with the surface of the specimen.

- 3.8 Place the specimen in an oven at a temperature of $140^{\circ} \pm 5^{\circ}\text{F}$ for 96 hours for Crum Rubber and 72 hours for all others. Inspect the specimen each day to check for slumping or collapse.
- 3.9 If the test fails for Crum Rubber sealant at the end of the 96 hour period, repeat the procedure using a new specimen for a period of 168 hours.
- 3.10 Remove the specimen from the oven and cool to room temperature. Examine the specimen for compatibility of the joint sealant with asphaltic concrete.

Any evidence of failure in adhesion, cohesion, formation of an oily exudate at the interface between the sealing compound and the asphaltic concrete, and softening or other deleterious effects to the asphaltic concrete, shall be cause for rejection of the sealing compound.

4. Report:

- 4.1 Rejection or acceptance shall be noted on the test report. (DOT-5)

5. References:

SD 311
DOT-5