
Test Procedure for**FLEXIBILITY TEST FOR SEALANTS AND REPAIR MATERIALS****TxDOT Designation: Tex-550-C****Effective Date: December 2011**

1. SCOPE

- 1.1 Use the following procedure to determine the flexibility of a sheet of sealant or repair material under specific test conditions.
 - 1.2 The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.
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2. APPARATUS

- 2.1 *Mold*, steel, aluminum, or brass; inner height of 4 in. (100 mm), inner width of 4 in. (100 mm), thickness of 0.04 in. (1 mm). See Figure 1.
- 2.2 *Plate*, steel, aluminum, or brass; minimum height of 5 in. (130 mm), minimum width of 5 in. (130 mm), minimum thickness of 0.125 in. (3 mm).
- 2.3 *Mandrel*, steel, aluminum, or brass; 1 in. (25.4 mm) diameter, minimum length of 4 in. (100 mm). See Figure 2.
- 2.4 *Release agent*, silicone grease, glycerin/talc mixture, or other suitable non-petroleum material.
Note 1—A silicone baking sheet, cut to fit the height and width dimensions of the metal plate specified in Section 2.2, may be used in place of release agent on the metal plate.
- 2.5 *Laboratory gas burner*, Fisher style.
- 2.6 *Spatula*, steel, minimum width 5 in. (130 mm).

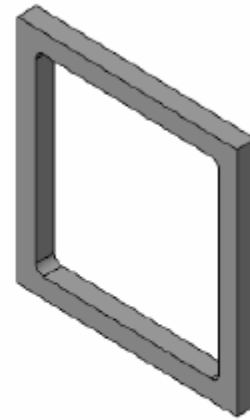
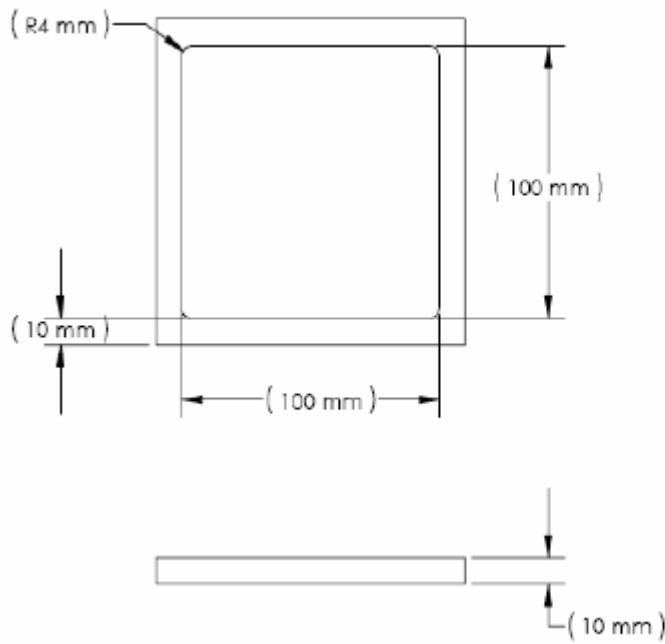


Figure 1—Flexibility Mold

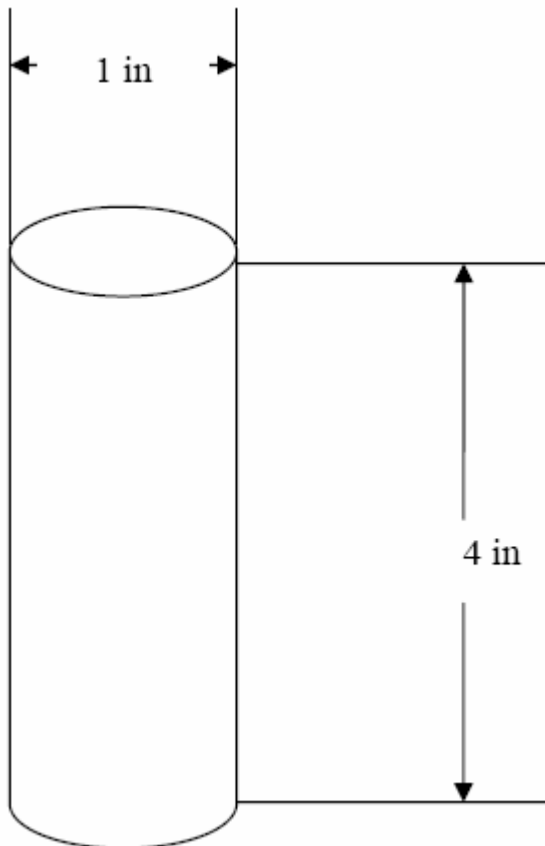


Figure 2—Mandrel

3. PROCEDURE

- 3.1 Obtain and prepare a representative sample of material for testing in accordance with Tex-546-C.
- 3.2 Coat the mold with release agent. Place the mold on the metal plate coated with release agent or covered by the silicone baking sheet.
- 3.3 Pour the material into the mold. Trim flush with the top of the mold using the metal spatula, heated on the burner.
- 3.4 Allow the specimen to cool to room temperature, 70–78°F (21–25°C), for a minimum of 24 hours.
- 3.5 Remove the sample from the mold.
- 3.6 Over a period of 10 seconds, bend the sample 180 degrees around the mandrel.
- 3.7 Report the description of the surface of the sample while the material is still bent around the mandrel. The material should show no signs of cracking.