
Test Procedure for

**EVAPORATIVE RECOVERY OF RESIDUE FOR
EMULSIFIED CRACK SEALANT**



TxDOT Designation: Tex-543-C

Effective Date: August 2002

1. SCOPE

- 1.1 Use this procedure to obtain the water-free asphalt residue from an emulsified asphalt crack-sealing compound. Also, determine the amount of asphalt in the sealant, expressed as a percentage.
 - 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 *Beaker or round can, 1000 mL/1 L (1 qt.)*
 - 2.2 *Stirring rod, glass or metal.*
 - 2.3 *Thermometer, capable of measuring the temperature between 50 and 200°C within $\pm 1^\circ\text{C}$ (nominally between 100 and 400°F $\pm 2^\circ\text{F}$).*
 - 2.4 *Heating mantle, designed for a 1000-mL (1-qt.) beaker.*
 - 2.5 *Balance, conforming to AASHTO M 231, Class G2 (accurate to ± 0.1 g).*
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3. PROCEDURE

- 3.1 Add 200 ± 0.5 g of the emulsified sealant to the container.
 - 3.2 Weigh the container, sealant, and stirring rod to the nearest 0.1 g and record the result.
 - 3.3 Place the container in the heating mantle.
 - 3.4 Begin heating the sample, stirring frequently during the entire process to prevent foaming and local overheating.
 - 3.5 Slowly heat the sample until the water begins to boil off.
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- 3.6 Allow the water to boil off until the temperature starts to rise over 105°C (220°F).
- 3.7 Bring the temperature of the sample to between 125 and 150°C (260 and 300°F) and maintain it there for 3 to 5 min.
- 3.8 Remove the container from the heating mantle.
- 3.9 Immediately weigh the container, residue, and stirring rod to the nearest 0.1g and record the result.
- 3.10 Pour any necessary residue test specimens while the material is still hot.
- 3.11 Subtract the final weight (measured in Section 3.9) from the initial weight (measured in Section 3.2), divide the result by two, and report this number as the percent residue.