Washington State
Department of Transportation

WSDOT SOP 318

Standard Operating Procedure for Melting of Flexible Bituminous Pavement Marker Adhesive for Evaluation

1. Scope

1.1. This standard covers the handling, cutting, and melting of Flexible Bituminous Adhesive.

1.2. This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety concerns associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1. ASTM Standards:

- D 5167 Standard Practice for Melting of Hot-Applied Joint and Crack Sealant and Filler for Evaluation.

3. Significance and Use

3.1. This standard establishes the procedure for handling, cutting and melting of Flexible Bituminous Pavement Marker Adhesives in preparation for the making of test specimens used in the laboratory evaluations of the Flexible Bituminous Pavement Marker Adhesives.

4. Apparatus

4.1. Laboratory Melter:

- An appropriate laboratory melter as described in section 6.1 of ASTM D5167.

4.2. Cutting Device:

- A heated knife or saw capable of cutting a vertical cross section from a solid adhesive sample.

5. Hazards

5.1. Use standard safety precautions and Personal Protective Equipment (PPE) when handling hot materials and preparing test specimens.

5.2 Prior to handling, cutting, or melting flexible bituminous pavement marker adhesive, a Material Safety Data Sheet (MSDS) must be obtained from the manufacturer so that proper safe handling techniques will be used.

6. Procedure

6.1 Cut a complete vertical section from the block of adhesive in order to obtain a uniform representative sample (see figure 1) and to supply enough product to pour all specimens for testing.

6.2 To avoid compatibility problems clean the melting container so that it is free of all cleaning solvents and previously melted material.

6.3 All segments from one vertical section must be melted in the same melting container. If necessary cut the sample to fit into container.

6.4 Heat and maintain the oil bath to 405 ± 5°F. Place the sample container into the heating apparatus. Insert paddle for stirring as soon as sample begins to melt. Begin continuous stirring immediately after inserting the paddle. Check the sample temperature frequently. Keep the sample container covered except when checking the sample temperature.

6.5 Heat the sample to 398 ± 2°F. Once the sample has become fluid and reached temperature, stop the mechanical stirring device and immediately remove sample container from the melter. Clean oil residue or wrap container with towel to ensure bath oil does not contaminate sample. Pour all required specimens immediately following removal of the sample container from the melter to minimize temperature loss.

6.6 Do not reuse sample once melted and split for testing. If retesting is necessary, a new specimen must be cut from the original sample.

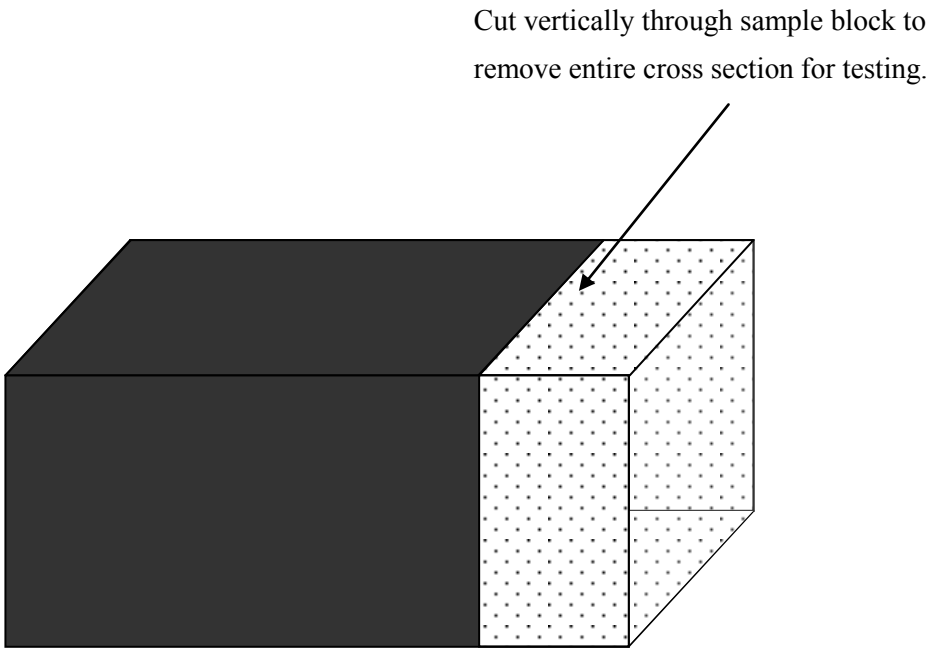

Figure 1