1. **SCOPE**

1.1. **Description of Test**

This method describes the procedure for determining the moisture content and particle size gradation of rubber crumb used for rubberized asphalt.

2. **APPARATUS AND MATERIALS**

2.1. **Equipment Required**

Balance - a balance sensitive to 0.01 g.

Sieves - Canadian metric standard square mesh sieves of size numbers as required by the specifications.

Mechanical sieve shaker.

Containers - pans suitable for storing the material after riffling and about 250 mm diameter by 25 mm deep for drying the sample.

Oven - capable of maintaining a temperature of 110°C ± 2°C.

Sample splitter.

3. **PROCEDURE**

3.1. **Sample Preparation**

Obtain samples as described in Method STP 108.

Reduce the sample to testing size of 100 to 150 g by means of a sample splitter. Do not adjust the sample size by adding or subtracting material after the splitting operation.
3.2. **Test Procedure**

3.2.1. **Moisture Determination**

Place the sample in a pan, and weigh immediately to 0.1 g.

Dry sample in oven for thirty minutes at 110°C.

Allow the sample to cool five minutes then weigh.

The difference between original weight and final weight is the weight of water.

Calculate percent moisture using the formula:

\[
\text{% Moisture} = \frac{\text{wt. of water}}{\text{wt. of dry material}} \times 100
\]

3.2.2. **Sieve Analysis**

Nest the sieves with the finest sieve above the bottom pan and the coarsest sieve at the top.

Place the dried sample on the top sieve, put sieves in mechanical sieve shaker, and shake for five minutes.

Weigh material in the pan, record as the weight passing the finest sieve. Add the material resting on sieve to the material on the balance pan and record the total as the weight passing the next larger sieve. Repeat the procedure until all the material from each larger sieve has been weighed.
4. **RESULTS AND CALCULATION**

4.1. **Calculations**

Calculate the sieve analysis based on dry sample weight as shown in the following examples.

<table>
<thead>
<tr>
<th>Weight passing</th>
<th>2.50 mm</th>
<th>107 g</th>
<th>100 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.00 mm</td>
<td>107</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>1.25 mm</td>
<td>92</td>
<td>86.0</td>
<td></td>
</tr>
<tr>
<td>560 um</td>
<td>7</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>400 um</td>
<td>3</td>
<td>2.8</td>
<td></td>
</tr>
</tbody>
</table>

4.2. **Reporting Results**

Report the percent passing each sieve and the moisture content on a suitable form.
APPROVAL SHEET

New __ Revision _X_ Date of Previous Document _82-04-01_
Effective Date: __-__

Description of Revision (Reason for Revision):
Format of test procedure updated.

Review/Implementation Process:
Reviewed by the Materials Section of the Technical Standards and Policies Branch.

Other Manuals/Policies Affected:
Nil

Follow Up/Training Required:
Nil

Comments/Concerns/Implications (Budget/Environment/Stakeholders):

Prepared and Recommended by D. MacLeod ____________ 93-12-16
Materials Standards Engineer Date

Approval Recommended by R.A. Widger ____________ __-__
Senior Materials Engineer Date

Approval Recommended by A.R. Gerbrandt ____________ __-__
Dir., Technical Standards & Policies Br. Date

Approved by D.G. Metz ____________ __-__
Assistant Deputy Minister, Infrastructure Date

Electronic File Updated __-__
Update Mailed __-__