



Standard Test Procedures Manual

Section: ASPHALT MIXES

Subject: RETAINED MARSHALL STABILITY

1. SCOPE

The method described determines the retained Marshall stability on Marshall compaction specimens after curing for 24 hours in a water bath at 60° C.

2. APPARATUS AND MATERIALS

2.1. Equipment Required

A water bath capable of maintaining a temperature at 60° C.

2.2. Materials Required

Six Marshall compaction specimens prepared in accordance with STP 204-8, PREPARATION OF MARSHALL COMPACTION SPECIMENS. The specimens shall be at the optimum asphalt content and design gradation.

3. PROCEDURE

3.1. Test Procedure

Determine density and air voids on each mold using STP 204-21, DENSITY AND VOID CHARACTERISTICS. Then select two sets of three molds, each having average equivalent properties.

Set three molds aside at room temperature and put three molds in a water bath at 60° C for 24 hours.

Run normal stability tests on each mold using STP 204-11, MARSHALL STABILITY AND FLOW, and average the results for each set. The three Standard Stability Specimens shall be conditioned as outlined in STP 204-11 at the end of a 24 hour waiting period.

4. RESULTS AND CALCULATIONS

4.1. Calculations

$$\text{Retained Stability} = \frac{\text{Soaked Stability}}{\text{Standard Stability}} \times 100$$

Standard Test Procedures Manual

STP 204-22

Section:
ASPHALT MIXES

Subject:
RETAINED MARSHALL STABILITY

APPROVAL SHEET

New Revision X Date of Previous Document 90-05-10
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 93-03-01
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 - -