

Standard Method of Test for

Submittal and Acceptance of Asphalt Open Graded Mix Designs

SCDOT Designation: SC-T-88 (12/13)

1. SCOPE

- 1.1 This method outlines the procedure for submitting asphalt open graded friction course mix designs to the Office of Materials and Research for review, mixture verification, and acceptance.

2. REFERENCED DOCUMENTS

- 2.1 SC-T-69, SC-T-90, SC-T-127, SC-T-128, SC-M-405, and Lab Form 269 (located in SCDOT Mix Design Computer Program-Workbook).

3. APPARATUS

- 3.1 Refer to reference documents for a listing of equipment needed for asphalt mix design per SC-M-405.

4. TESTING AND SUBMITAL OF TEST SPECIMENS

- 4.1 The Contractor's certified HMA Design Technician (Level II) must submit the following items for verification of each OGFC along with the appropriate 269 form and all OGFC data, including selecting optimum asphalt content with drain down test information. These tests must be performed in an SCDOT certified mix design lab per SC-M-405, and information inputted on the SCDOT supplied Mix Design Computer-Workbook.
 - 4.1.1 Test three asphalt drain down specimens weighing approximately 1200 grams each with binder: A) at optimum asphalt, B) 0.5% below, C) and 0.5% above optimum content, These will be tested by the contractor to select optimum binder content and check to see if the binder content for drain down is excessive.
 - 4.1.2 Three 1200 gram additional batches, without asphalt binder, to be used for a check samples for drain down (SC-T-90) and stripping (SC-T-69) by the SCDOT.
 - 4.1.3 Three batches of OGFC without asphalt binder to be used in determining the Porosity and Cantabro Abrasion values of the OGFC mixture. The gyratory batch size will be determined by the latest SCDOT mix design computer program. (~3800 grams)
 - 4.1.4 Containers of PG Binder, and stabilizing fibers (if required).

5. PROCEDURE – ACCEPTANCE BY THE SCDOT.

- 5.1 Perform SC-T-90 using the 1200 gram batches to verify the amount of drain down of the OGFC mixture at optimum asphalt binder content.

- 5.2 Perform SC-T-69 using a quartered down portion of the 1200 gram batch (usually 300 grams) to check the amount of stripping of the OGFC mixture at optimum asphalt content.
- 5.3 Perform SC-T-128 to obtain the average Porosity value of the OGFC mixture at optimum binder content.
- 5.4 Perform SC-T-127 and obtain the Cantabro Abrasion Resistance value of the OGFC mixture at optimum binder content.

6. CALCULATIONS

- 6.1 Per SC-T-90, SC-T-127, SC-T-128.

7. REPORT

- 7.1 SCDOT will prepare an information sheet with the Contractor's Job Mix Formula, plant location, OGFC test data, along with acceptance and expiration dates. The information will be kept on file at the Department and a copy will be sent to the Contractor.