

Colorado Procedure 66-06

Standard Method of Test for

Measuring Texture Depth of Portland Cement Concrete Using a Tire Tread Depth Gauge

1. SCOPE

1.1 This method describes the procedure for measuring texture depth of fresh or hardened portland cement concrete by use of a tire tread depth gauge.

1.2 The values stated in SI units are to be regarded as the standard.

2. REFERENCED DOCUMENTS

2.1 AASHTO T 261-78 (1999): Discontinued.

3. APPARATUS

3.1 *Tire Tread Depth Gauge* – A tire tread depth gauge with 1-mm (1/32-in.) graduations. The gauge end may be modified to a shape suitable for the measurement.

3.2 Wire or stiff bristle brush, carborundum stone.

3.3 Steel straightedge approximately 6 by 25 by 300 mm (1/4 by 1 by 12 in.).

4. SELECTION OF TEST LOCATIONS

4.1 One test shall be identified by CDOT at a stratified random location transversely and longitudinally every 528 linear feet (160 m) or fraction thereof as specified in the testing schedule.

5. PROCEDURE

5.1 Document the nature and purpose of the measurement (inspection of new construction, condition survey, safety review, etc.); include the date of measurement, test location, the position within the lane (wheel path or outside wheel path), whether the concrete is fresh (plastic), hardened without traffic, or approximate time that the pavement has been opened to traffic. Note

whether the texture was construction by grinding or tining.

5.2 One test shall comprise of 10 consecutive texture depth groove readings. The reading location of each groove shall be in a line perpendicular to the grooves, starting at the point randomly located in accordance with Subsection 4.1.

5.3 The texture depth shall be measured from the original concrete surface. Any projections above the original surface shall be removed by brushing with a wire brush or carborundum stone as necessary to remove ridges adjacent to grooving, or with the steel straightedge prior to taking a measurement on hardened concrete. If measurements are made on fresh concrete, the depth gauge guide shall be pressed down to the level of the original concrete surface.

5.4 With the depth gauge guides in contact with the original concrete surface, the plunger is depressed until contact is made with the bottom of the groove in the concrete. The gauge is then removed without disturbing the plunger. The texture depth is read to the nearest 1-mm (1/32-in.) on the calibrated plunger. The plunger is then zeroed and the procedure is repeated until all measurements are completed.

6. CALCULATIONS

6.1 Calculate the average groove depth for each 528 linear feet (160 m) or fraction thereof to the nearest 1-mm (1/32-in.).

7. REPORT

7.1 The report shall indicate the 528 linear feet (160 m) identification and the average groove depth to the nearest 1-mm (1/32 in.).

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