INTERNATIONAL SLURRY SURFACING ASSOCIATION

TECHNICAL BULLETIN

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Test Method for Measurement of Slurry Seal Consistency

1. Scope

1.1 This test provides a numerical value for slurry seal consistency. The Recommended Performance Guideline for Emulsified Asphalt Slurry Seal, ISSA A105, provides specific target values for consistency results.
NOTE: This test may not be applicable to certain quick-set and quick-traffic systems.

2. Referenced Documents

2.1 ISSA Technical Bulletins:
A105 Recommended Performance Guideline for Emulsified Asphalt Slurry Seal
TB No. 113 Test Method for Determining Mix Time for Slurry Seal and Micro Surfacing Systems
2.2 ASTM Standards:
C 128 Standard Test Method for Specific Gravity and Absorption of Fine Aggregate

3. Significance

3.1 This test measures the flow characteristics of slurry seal system components for lab evaluations.

4. Summary of Method

4.1 The mixtures are prepared at ambient temperature and are based on 400 grams of dry aggregate.
4.2 The mixture is placed in the sand absorption cone, the cone removed, and the flow of the slurry is measured and recorded as the slurry consistency in centimeters.

5. Apparatus

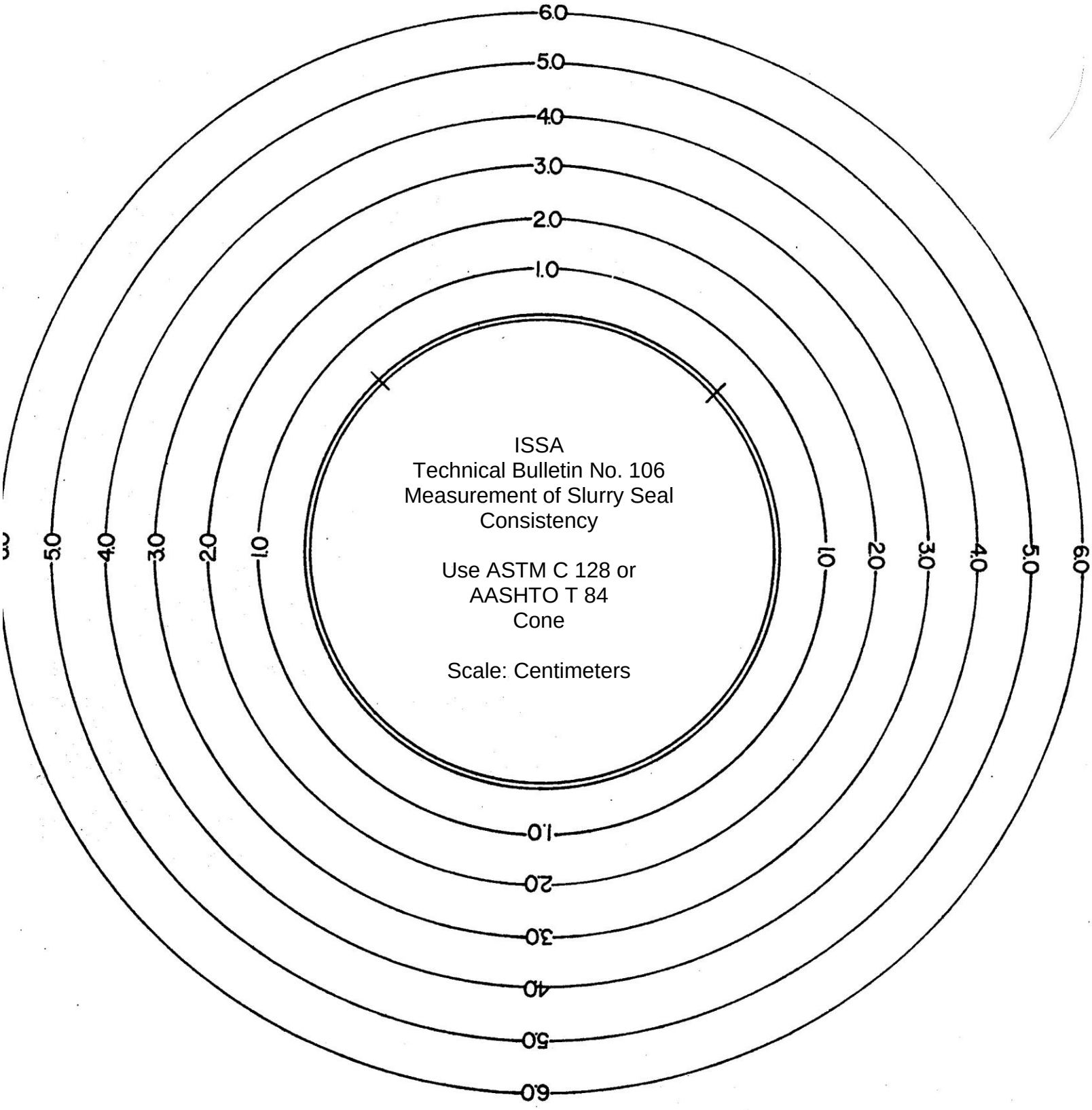
5.1 Balance, capable of weighing 1,000 grams to within 0.1 gram.
5.2 Suitable mixing spoon or spatula and mixing bowl of adequate size.
5.3 Sand absorption cone described in ASTM C 128 or AASHTO T 84. The cone is a hollow 0.8 mm thick metal frustum, 75 mm in height, 40 mm in diameter at the top and 90 mm in diameter at the bottom.
5.4 Flow scale with seven concentric circles printed on a sheet of paper and supported by a rigid surface. The center circle is equal to the diameter of the large opening of the cone. Each additional circle is one centimeter greater in radius than the previous one. A copy of the flow scale is located at the end of this Technical Bulletin (See Figure 1). It is also available as a free download on the ISSA website.
5.5 Suitable timer to read seconds.

6. Procedure

6.1 The proper ratio of system components should be determined in the laboratory according to ISSA TB No. 113 and based on 400 grams dry aggregate weight.
6.2 The large opening of the cone is centered on the flow scale.
6.3 System components are thoroughly mixed for 30 seconds and immediately poured into the small opening of the cone until the cone is full. NOTE: A funnel may be utilized to facilitate flow of the mix into the cone. The funnel should have a 25-40mm small opening with a maximum height of 100mm. Remove the funnel after filling the cone.
6.4 Lift the cone immediately using a smooth vertical motion.
6.5 Once the flow has stopped, the outer edge of the slurry is measured at four points 90º apart, those values are averaged, and the result is recorded in centimeters.

7. Report

7.1 The slurry consistency is reported as "___ cm flow @ ___% total water." The total water consists of the aggregate moisture plus added mix water.



Sample No.	cm
Mix Formula	cm
Date	cm
	cm
	Total: Average: