
Test Method for Evaluating Degree of Settling of Paint

SC T 114

1. Scope

This test method outlines the procedure for determining the degree of settling of paint. This procedure is based on SCDOT Standard Specifications 604.02A.4.o and ASTM D 869.

2. Referenced Documents

- 2.1 ASTM Standards
 - D 869 Test Method for Evaluating Degree of Settling of Paint

3. Apparatus

- 3.1 Pint Can Lined with an Appropriate Material Designed to be Non-reactive with Waterborne Paints.
- 3.2 Oven Capable of Maintaining a Temperature of 122°F ($\pm 2^\circ\text{F}$).
- 3.3 Spatula Weighing $45 \pm 1\text{g}$ with Square End Blade 125 mm ($4 \frac{3}{4}\text{ in.}$) in length and Approximately 20 mm ($13/16\text{ in.}$) in width._

4. Test Specimens

- 4.1 1 Quart Paint

5. Procedure

- 5.1 Fill the pint can to the bottom of the friction seal lip and seal.
 - 5.2 Place can in an inverted position for 1 hour to insure a complete seal between the cover and the body of the can.
 - 5.3 At the end of 1 hour, the can shall be placed in an upright position for at least 1 hour.
 - 5.4 Place the can in the 122°F oven in a single tier for 5 days.
 - 5.5 At the end of the 5 days, remove the can from the oven and allow it to cool to room temperature for 4 to 5 hours.
 - 5.6 Open the can without stirring or agitation, then, examine the sample without removal of any supernatant vehicle.
 - 5.7 Using the square-end blade spatula, determine the extent and character of portions of the paint that may have separated during storage.
 - 5.7.1 Hold the spatula perpendicular to and in the center area of the paint at a height whereby the bottom edge of the spatula is level with the top of the can.
 - 5.7.2 Drop the spatula from that position.
 - 5.7.3 Rate the condition of the sample as follows:
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<u>Rating</u>	<u>Description of Paint Condition</u>
10	Perfect suspension. No change from the original condition of the paint.
8	A definite feel of settling and a slight deposit brought up on the spatula
6	Definite cake of settled pigment. Spatula drops through cake to bottom of container under its own weight. Definite resistance to sidewise motion of spatula. Coherent portions of cake may be removed on spatula.
4	Spatula does not fall to bottom of container under its own weight. Difficult to move spatula through cake sidewise and slight edgewise resistance.
2	When spatula has to be forced through the settled layer it is very difficult to move spatula sidewise. Definite edgewise resistance to movement of spatula. Paint can be remixed to a homogenous state.
0	Very firm cake that cannot be reincorporated with the liquid to form a smooth paint by stirring manually.

5.7.4 The degree of settling shall have a rating of 6 or better when evaluated.

6. Calculations

6.1 None.

7. Report

7.1 Report settlement as an even integer on Form 937.
