
Test Procedure for

SAMPLING LIQUID MEMBRANE-FORMING COMPOUNDS FOR CURING CONCRETE



TxDOT Designation: Tex-718-I

Effective Date: August 1999

1. SCOPE

- 1.1 This test method outlines the procedure for sampling liquid membrane-forming compounds for curing concrete.
 - 1.2 The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.
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2. SAMPLING

- 2.1 An authorized representative of the Department must select samples.
 - 2.2 Sample containers must be standard friction seal 500-mL (1-pt.) cans, lined to prevent rusting.
 - 2.2.1 The manufacturer must provide cans for sampling at the manufacturing site.
 - 2.2.2 The sampler will inspect cans for cleanliness prior to sampling.
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3. PROCEDURES

- 3.1 *Production Sampling:*
 - 3.1.1 Select 3 samples during actual transfer (filling) operations to the shipping containers.
 - 3.1.2 Take the first sample from the fill stream after 15%, but before 30% of material has been transferred or filled. Label the sample #1 and indicate the approximate number of drums filled.
 - 3.1.3 Take the second sample from the fill stream after 40%, but before 60% of material has been transferred or filled. Label the sample #2 and indicate the approximate number of drums filled.
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- 3.1.4 Take the third sample from the fill stream after 70%, but before 90% of material has been transferred or filled. Label the sample #3 and indicate the approximate number of drums filled.
- 3.2 *Drum Sampling:*
- 3.2.1 Select 3 drums, at random, for each identifiable lot or batch.
- 3.2.2 Thoroughly disperse material in each drum with a mechanical mixer.
- 3.2.3 Check each drum for complete dispersion by scraping a 25 × 25-mm (1 × 1-in.) slat or similar object along the drum bottom. Remove the slat; examine the end for settlement and examine the material along the length for uniform appearance.
- 3.2.4 Secure a sample using a 25-mm (1-in.) diameter tube or pipe, for each of the 3 drums.
- 3.2.4.1 Insert the tube or pipe to within approximately 150 mm (6 in.) of the bottom of the drum, place the palm of the hand over the open end of the tube or pipe to form a seal and withdraw the tube over the sample can, and discharge sufficient material to fill the can.
- 3.2.4.2 Discharge the remainder of material back into the drum.
- 3.2.5 Allow material in the tube to drain down to a drip, and wipe material from the exterior of the tube before sampling another drum.
- Note 1**—Segregate drums into groups of 20 or fewer when drums are not identifiable by lot or batch. Assign a lot or batch number to each group. Sample the material in accordance with Section 3.2.
- Note 2**—Sample each drum if there are 3 drums or fewer.
- 3.3 *Bulk Storage Tank Sampling:*
- Note 3**—Bulk storage tanks must be designed for recirculation, therefore, must have fixed stirrers or utilize portable stirrers to ensure complete mixing prior to discharge or use of material.
- 3.3.1 Ensure complete mixing as described in Section 3.2.3 prior to sampling.
- 3.3.2 Sample from bulk storage tanks with recirculating systems from a recirculating line or from the discharge line.
- 3.3.2.1 Discharge approximately 19 L (5 gal.) into a clean container before securing the first sample.
- 3.3.2.2 Circulate for 3–5 minutes, discharge approximately 19 L (5 gal.), and secure a second sample.
- 3.3.2.3 Repeat the circulation and discharge to secure a third sample. Number the samples in the order taken.
- 3.3.2.4 Return discharged material to the storage tank if clean containers are used.

- 3.3.3 Sample bulk storage tanks utilizing mixers in the same manner as drums, using a tube.
- 3.3.3.1 Secure 3 samples: one from the top third of the tank, one from the middle third, and one from the bottom third.
- Note 4**—Do not blend or mix 2 or more portions of material to form a composite sample.
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4. TAGGING/LABELING, DOCUMENTING, AND SHIPPING

- 4.1 Follow the procedures detailed in Tex-701-I.
- 4.2 Samples of liquid membrane-forming compound for curing concrete must include the following information:
- batch number;
 - part of batch represented, when applicable (first, middle, or last third);
 - total batch quantity represented;
 - producer, material type, and dates of sampling and of manufacture; and
 - sampler's name.
- 4.3 Package each individual sample carefully, being certain retaining clips are in place.