
Test Procedure for**ORGANIC IMPURITIES IN FINE AGGREGATE FOR
CONCRETE****TxDOT Designation: Tex-408-A****Effective Date: December 2016**

1. SCOPE

- 1.1 Use this method to determine the presence of organic compounds in fine aggregates intended for use in cement mortar or concrete. The test provides a quick, relative measure to determine if further tests of the fine aggregate are necessary before approval for use
- 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. APPARATUS

- 2.1 *Glass bottles, 355–473 mL (12–16 fl. oz.), clear glass, graduated in milliliters (ounces), with screw type caps or rubber stoppers.*
- 2.2 *Glass color standard, mounted in a plastic holder with five organic color numbers, one through five (Gardner Color Standard Numbers 5, 8, 11, 14, and 16, ASTM D 1544 [06.01]).*
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3. REAGENTS

- 3.1 *Sodium hydroxide solution, 3%, prepared by dissolving 30 g of sodium hydroxide (NaOH) crystals in 970 mL (33 fl. oz.) of distilled water.*
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4. PROCEDURE

- 4.1 Obtain a 300 g air-dried sample in accordance with Tex-400-A.
- 4.1.1 If the fine aggregate consists of a combination of sands, combine the sands in the proportions by mass in which they are to be used.
- 4.2 Fill the glass bottle to the 133 mL (4.5 fl. oz.) mark with the material to be tested.
- 4.3 Add enough NaOH solution to the bottle to cover the sample. Place cap or stopper on jar and shake jar vigorously to remove air bubbles.
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- 4.4 Bring the solution level up to the 207 mL (7 fl. oz.) mark, stopper, and shake again.
 - 4.5 Allow the bottle and contents to stand undisturbed for 24 hours.
 - 4.6 At the end of the 24-hour standing period, compare the color of the supernatant liquid above the test sample with that of the Glass Color Standard, Organic Color No. 3 (Gardner No. 11), as described under Section 2.
Note 1—Do not disturb the contents while handling the bottles to make the color comparison, since this could cause the liquid to become cloudy.
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5. REPORTING

- 5.1 Report results as lighter, darker, or equal to the standard. Test samples rated darker than the standard in accordance with AASHTO T 71. Compressive strength at 7 days should not be less than 95%.
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6. ARCHIVED VERSIONS

- 6.1 Archived versions are available.