



# Performance Examination - Aggregate

## Standard Test Method for Organic Impurities in Fine Aggregates for Concrete (ASTM C40 / C40M-16) [AASHTO T 21M / T 21-15]

Candidate Name: \_\_\_\_\_ NICET ID: \_\_\_\_\_

Apparatus	Trial 1	Trial 2
<b>Bottles</b> Clear (colorless) glass or plastic graduated Outside thickness between 38.1 to 63.5 mm (1.5 to 2.5 in.) Approximately 240 to 470-ml (8 to 16-oz) nominal capacity Graduation lines in milliliters or ounces Lines at 2 ½ oz only necessary when using the standard color solution Stoppers or caps which are not soluble in specified reagents <i>Note: If the bottle is unmarked, lines may be scribed onto the bottle and are required only at the 75, 130 &amp; 200-ml (2 ½, 4 ½, &amp; 7-oz) levels.</i>		
<b>NaOH Solution</b> Three parts reagent grade NaOH (sodium hydroxide) to 97 parts water by weight		
<b>Standard Color Solution</b> Reagent grade Potassium Dichromate (K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub> ) dissolved in concentrated sulfuric acid at the rate of 0.250 g/100ml of acid. The solution is freshly made (less than 2 hours old).		
<b>Glass Color Standard</b> ( <i>one of the following</i> ) Glass color plate with Organic Color Nos. 1-5 (Equal to Organic Color No. 3) Gardener Color Nos. 5, 8, 11, 14, & 16		

Procedures	Trial 1	Trial 2
1. The sample obtained by Method C702		
2. Sample mass about 450 g (1 lb.)		
3. Sand added to the 130-ml (approximately four ½-ozs) level in the bottle		
4. NaOH solution added until the volume of fine aggregate and liquid after shaking is 200-ml (approximately 7 oz) level		
5. Bottle stoppered and shaken vigorously		
6. Allowed to stand for 24 hours		
7. Color comparison made against color standards		

First Attempt: Pass: \_\_\_\_\_ Fail: \_\_\_\_\_ Second Attempt: Pass: \_\_\_\_\_ Fail: \_\_\_\_\_

Exam Administration: Remote \_\_\_\_\_ In-Person \_\_\_\_\_

Comments:

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Examiner Name: \_\_\_\_\_ Examiner Signature: \_\_\_\_\_ Date: \_\_\_\_\_