

# Aggregate Field Testing Technician

## KT-02 Sieve Analysis of Aggregate

Revised June 2022

**Two attempts may be made by the applicant. The applicant may stop themselves once and not have that count as one of the two attempts. If the applicant stops voluntarily, draw a line at that point and note that the applicant stopped themselves then restart at the top of the next attempt.**

**Applicant:** \_\_\_\_\_

**CIT #:** \_\_\_\_\_

**Employer:** \_\_\_\_\_

		1st Test		Stopped Test		Re-Test	
	<b>Fine Aggregates</b>						
1.	<u>Fine aggregates shall have a mass, after drying, no less than 300 g. (4.2.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
	<b>Coarse Aggregates</b>						
2.	<u>See TABLE 1 for Sample size. (4.3.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
	<b>Sample Preparation</b>						
3.	<u>Dry test sample to a constant mass. (5.1.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
4.	<u>Record the original dry mass of the sample. Determine mass to the nearest 0.1%. (5.1.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
5.	<u>Wash samples over the No. 200 (75 µm) sieve according to procedure specified in KT-03. (5.2.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
6.	<u>Redry sample to constant mass. Determine the mass of the sample to the nearest 0.1% of the original dry mass. Record this as the dry mass of sample after washing (5.2.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
	<b>Test Procedure</b>						
7.	<u>Nest appropriate sieves in order of decreasing size. (6.1.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
8.	<u>Place sample on top of sieve. (6.1.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
9.	<u>Agitate sieves by hand or mechanical methods. (6.1. &amp; 6.1.1.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
10.	<u>Limit the quantity of material on a given sieve to prevent overloading. (6.2)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL

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11.	When hand sieving, sieve until not more than 0.5% of the original sample mass passes any given sieve during 1 minute of sieving. (11.1.)	PASS	FAIL	PASS	FAIL	PASS	FAIL
12.	Determine the mass (cumulative) of material retained on each sieve. (6.5.)	PASS	FAIL	PASS	FAIL	PASS	FAIL
13.	<u>Total the mass of all individual sieves and the pan and check that it is within 0.3% of the original mass placed on the sieves. (6.4.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
14.	<u>Calculate percentage retained on each sieve and the percent passing the No. 200 (75 µm) sieve. (7.1.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL

**TABLE 1**

**Sample Size for Determination of  
Coarse Aggregate Gradation Tests**

<u>Sieve Size</u>	<u>Minimum Mass of Samples (g)</u>
2 1/2 in (63 mm) or more -----	35,000
2 in (50 mm)-----	20,000
1 1/2 in (37.5 mm) -----	15,000
1 in (25.0 mm)-----	10,000
3/4 in (19.0 mm) -----	5,000
1/2 in (12.5 mm) -----	2,000
3/8 in (9.5 mm) or less -----	1,000

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**Overall Score**

Circle One

**1<sup>st</sup> Test**

**Stopped Test**

**Re-Test**

PASS

PASS

PASS

FAIL

FAIL

FAIL

**Witness Examiner:**

(First Try)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Witness Examiner:**

(Stopped Try)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Witness Examiner:**

(Re-Test)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date