

Aggregate Lab Testing Technician
KT-59 Flat and Elongated Particles In Coarse Material Test
 Revised: March 2020

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	
	Sampling						
1.	<u>Sample the coarse aggregate in accordance with KT-1, Section 3. (6.1.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
2.	<u>Obtain a large enough sample to yield the required plus 4 material listed in Section 6.2. (6.2.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
3.	<u>Sieve the material over the No. 4 (4.75 mm) screen, discard all material passing the No. 4 (4.75 mm) screen. (6.1.1)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
4.	<u>Oven dry the sample to a constant mass at a temperature of 230 +/- 9°F (110 +/- 5°C). (6.1.2.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
5.	<u>Determine the Original Dry Mass of the sample. The mass of the plus No. 4 material shall conform to minimum mass of +4 test sample, lb (kg). Nominal Maximum Aggregate size is one size larger than the first sieve to retain more than 10%.(6.2)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
6.	<u>Sieve the sample of coarse aggregate to be tested in accordance of KT-2. Separately retain and determine the mass of each sieve size fraction (7.1.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL

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7.	<u>Reduce each size fraction larger than the No. 4 (4.75 mm) sieve present in the amount of 10% or more of the original sample in accordance with KT-1 until approximately 100 particles are obtained. (7.1.)</u>	PASS	FAIL	PASS	FAIL	PASS	FAIL
8.	With the proportional device set at a 5:1 ratio (or as required by the contract documents), test each particle in each size fraction for flat and elongated. (7.2.)	PASS	FAIL	PASS	FAIL	PASS	FAIL
9.	Set the larger opening of the proportional caliper device equal to the particle length. The particle is flat and elongated if the flattest portion of the particle can be placed through the smaller opening. Determine the proportion of the sample in each group by mass. (7.2.1.)	PASS	FAIL	PASS	FAIL	PASS	FAIL

Overall Score

Circle One

1st Test

PASS

FAIL

Stopped Test

PASS

FAIL

Re-Test

PASS

FAIL

Witness Examiner:

(First Try)

Signature

Date

Witness Examiner:

(Stopped Try)

Signature

Date

Witness Examiner:

(Re-Test)

Signature

Date