

SECTION 115

AGGREGATES FOR ASPHALT CONCRETE

115.1 GENERAL REQUIREMENTS

The physical characteristics and quality of aggregates for asphalt concrete shall conform to the specifications for the particular asphalt material required by the contract.

The aggregate shall not contain clay balls or organic debris, and the particles shall be free from coating with clay or dust, which prevents thorough coating with asphalt.

115.2 SPECIFIC REQUIREMENTS

A. Mineral aggregate for all classes of asphalt concrete shall conform to the requirements shown in the following table and the applicable footnotes.

Requirement	<u>CLASS E</u>		<u>CLASS G</u>		<u>CLASS S</u>
	<u>Type 1</u>	<u>Type 2</u>	<u>Type 1</u>	<u>Type 2</u>	
Processing Required	Crushed		Crushed		Crushed
Passing ¾ inch Sieve	100		100		
Passing ½ inch Sieve	75 – 95	100	75 – 95	100	100
Passing 3/8 inch Sieve					80 – 100
Passing #4 Sieve	45 - 75	60 – 80	45 – 75	60 – 80	24 – 45
Passing #8 Sieve	30 – 55	40 – 60	30 – 55	40 – 60	10 – 22
Passing #16 Sieve	20 – 45	26 – 50	20 – 45	25 – 50	
Passing #40 Sieve	10 – 30	15 – 35	10 – 30	15 – 35	
Passing #200 Sieve	3 – 7	4 – 8	3 – 7	4 – 8	2 – 5
Soundness Loss, Max.	15		12		12
Liquid Limit, Max.	25		25		25
Plasticity Index, Max.	non-plastic		non-plastic		non-plastic
L.A. Abra. Loss, Max.	40%		35%		40%
Asphalt Coating, Min.	95%		95%		95%
Foot Notes	1, 2, 4, 5		1, 2, 4, 5		1, 2, 3, 5

1. A tolerance of three percent (3%) in the amount passing the maximum size screen will be permitted, providing all material passes a screen having a one-fourth (1/4) inch larger opening.

2. The aggregate retained on the No. 4 sieve shall contain at least thirty percent (30%) by dry weight of crushed pieces having two (2) or more faces produced by crushing.
3. The aggregate retained on the No. 4 sieve shall contain at least 90 percent (90%) by dry weight of crushed pieces having 2 or more faces produced by crushing.
4. The aggregate retained on the No. 4 sieve shall contain at least 50 percent (50%) by dry weight of crushed pieces having 2 or more faces produced by crushing.
5. The following requirements shall apply:

Sodium Sulfate	+ #4 sieve - 12% max.
	- #4 sieve - 12% max.

Shale Content	+ #4 sieve - 2% max.
	- #4 sieve - 2% max.

B. Classes E and G

1. Filler shall consist of fine, inert silt or stone dust, which is essentially free from lumps. The material shall be so fine that, when pulverized for testing, ninety percent (90%) by dry weight will pass a No. 40 sieve, and at least sixty percent (60%) by dry weight will pass a No. 200 sieve. The linear shrinkage shall not exceed four percent (4%), and the plasticity index shall not exceed six (6). The material shall be of such nature that not more than twenty-five percent (25%) by volume will separate from asphalt in the presence of water.

During production, the filler shall be screened over a screen of a size corresponding to the maximum size of the mineral aggregate. A larger size screen may be permitted or a smaller size required, if necessary, to facilitate production or to remove objectionable material. Lumps shall be pulverized prior to blending if required by the Engineer.

2. Crushed rock shall consist of hard, durable fragments of particles of rock, free of stripping, dirt, vegetable matter, and foreign substance.
3. Sand shall consist of sandy soil or crushed stone screenings. The sand shall be uniform in composition. Seams, layers, or pockets of soil encountered not meeting sand requirements shall be wasted. During production, the sand shall be screened over a screen of a size corresponding to the maximum size of the mineral aggregate. A larger size screen may be permitted or a smaller size required, if necessary, to facilitate production or to remove objectionable material.

The sand shall be pulverized at the pit prior to loading and shall meet the following requirements by dry weight:

Passing a No. 4 sieve.....	80-100%
Passing a No. 8 sieve.....	50-100%
Passing a No. 40 sieve.....	40-100%
Passing a No. 200 sieve.....	0- 60%
Plasticity Index, Max.....	6

4. Mineral filler shall consist of finely ground particles of stone, fly-ash, lime, or Portland Cement. It shall be thoroughly dry and free from lumps. It shall meet the following gradation requirements by dry weight when tested in accordance with AASHTO T 37.

Passing a No. 4 sieve.....	100%
Passing a No. 40 sieve.....	90-100%
Passing a No. 80 sieve.....	85-100%
Passing a No. 200 sieve.....	65-100%

115.3 SAMPLING AND TESTING

Sampling.....	SD 201
Gradation.....	SD 202
Liquid Limit and Plasticity Index.....	SD 207
Moisture sensitivity.....	SD 309
L.A. Abrasion Test.....	AASHTO T 96
Linear Shrinkage (Filler).....	SD 303
Soundness Test (Sodium Sulfate Solution - Five Alternations).....	SD 220
W.A.P. Test (Filler).....	SD 304
Crushed Particle Test.....	SD 211

115.4 METHOD OF MEASUREMENT &

115.5 BASIS OF PAYMENT

Aggregates for asphalt concrete will be incidental to the various asphalt concrete bid items. There will be no separate measurement and payment for aggregates for asphalt concrete.

END OF SECTION