

**1111 - AGGREGATES FOR SURFACING OR RESURFACING**

**SECTION 1111 AGGREGATES**

**AGGREGATES FOR SURFACING OR RESURFACING**

**1111.1 DESCRIPTION**

This specification covers the type of aggregate used for surfacing or resurfacing operations as shown in the Contract Documents.

**1111.2 REQUIREMENTS**

**a. Composition.** Provide one of the following types of aggregates for surfacing or resurfacing as shown in **TABLE 1111-1**.

**b. Quality<sup>1</sup>.**

- Soundness<sup>2</sup>, minimum (KTMR-21) ..... 0.85
- Wear<sup>3</sup>, maximum (KTMR-25) ..... 45%

<sup>1</sup>Crushed aggregates with less than 10% material retained on the No. 4 sieve (excluding mineral filler supplements) must be produced from a source complying with the official quality requirements of this Section prior to crushing.

<sup>2</sup>The above requirements for soundness do not apply for aggregates having less than 10% material retained on the No. 4 sieve.

<sup>3</sup>The above requirements for wear do not apply to aggregates having less than 10% material retained on the No. 8 sieve.

**c. Product Control.**

(1) Size Requirements. Provide aggregate that complies with **TABLE 1111-1**. Determine the fineness modulus in accordance with the procedures listed in Part V, Section 17.07.

<b>TABLE 1111-1: GRADING REQUIREMENTS FOR AGGREGATES FOR SURFACING OR RESURFACING</b>									
<b>Type</b>	<b>Material</b>	<b>Percent retained-square mesh sieve (Gradings after removal of deleterious substances)</b>							<b>Fineness Modulus</b>
		<b>1 ½"</b>	<b>1"</b>	<b>¾"</b>	<b>3/8"</b>	<b>No. 8</b>	<b>No. 30</b>	<b>No. 200</b>	
SA-1	Sand-gravel		0	0-5	0-20			**	4.00 min.*
SA-2	Sand-gravel	0	1-15					**	5.00 min.
SA-6	Crushed Stone	0	0-5	5-25	45-100		95-100	**	
SA-7	Crushed Stone	0		25-50		85-100		**	
SA-X	Crushed Stone		0	0-5	35-65		95-100	**	

\*For fineness modulus less than 4.00 but greater than 3.75, provide additional materials as a penalty at a rate of 1.5% for each 0.05 less than 4.00 fineness modulus. Use a maximum lot size of 500 cubic yards or tons to determine penalty. Average all tests within the lot to determine penalty.

(2) Deleterious Substances. Do not exceed the following percentages of deleterious substances by weight:

- Material passing No. 200 sieve (KT-2) ..... 3.0\*\*
- Clay lumps and friable particles (KT-7) ..... 2.0\*\*
- Sticks (wet) (KT-38) ..... 2.0

\*\*The total combination of clay lumps and friable particles and material passing the No. 200 sieve can be 7% provided the contractor furnishes an additional 1.5% material for each 1% that the total combination of the two is over the 5% limit

**d. Stockpiling.** Stockpile and handle aggregates in such a manner to prevent detrimental degradation and segregation, the incorporation of appreciable amounts of foreign material, and the intermingling of stockpiled materials.

**1111.3 TEST METHODS**

Test aggregates according to the applicable provisions of **SECTION 1111**.

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### **1111.4 PREQUALIFICATION**

Prequalify aggregate sources according to **subsection 1101.4**.

### **1111.5 BASIS OF ACCEPTANCE**

Aggregates covered by this subsection are accepted based on the procedures described in **subsection 1101.5**.