



## SECTION 1004

### GRADED AGGREGATE FOR BITUMINOUS SURFACES

**1004.1 Scope.** This specification covers aggregate to be used in bituminous surfacing.

**1004.2 Coarse Aggregate.**

**1004.2.1** All coarse aggregate shall consist of sound, durable rock, free from cemented lumps or objectionable coatings. The percentage of deleterious substances shall not exceed the following values and the sum of percentages of all deleterious substances shall not exceed 8.0 percent.

Deleterious Material	Percent by Weight
Deleterious Rock	8.0
Mud Balls and Shale Combined	2.0
Clay, uniformly dispersed	3.0
Other Foreign Material	0.5

**1004.2.1.1** The above requirements apply to combined aggregates during production when used in accordance with [Sec 401](#) and [402](#).

**1004.2.1.2** If a density requirement is specified for asphaltic concrete, the total quantity of chert in each size or fraction of produced crushed stone aggregate, including that permitted as deleterious, shall not vary by more than 10 percentage points from the quantity present in the aggregate used in the approved laboratory job mixtures.

**1004.2.1.3** Crushed stone shall be produced from rock of uniform quality. Rock tested from any combination of ledges for source approval and trial mix samples shall meet the following criteria.

Property	Value
Los Angeles Abrasion, AASHTO T 96, percent loss, max.	55
Absorption, AASHTO T 85, percent, max.	4.5

**1004.2.2** Gravel aggregate shall be washed sufficiently to remove any objectionable coating and shall meet the following criteria for source approval and trial mix samples.

Property	Value
Los Angeles Abrasion, AASHTO T 96, percent loss, max.	55
Absorption, AASHTO T 85, percent, max.	5.5

**1004.2.3** Steel slag consisting principally of a fused mixture of oxides and silicates shall be a synthetic aggregate produced as a by-product of basic oxygen, electric or open hearth steel making furnaces. The steel slag shall be aged at least three months after crushing and screening. Steel slag, which has been previously crushed, screened, and aged three months will not be required to receive additional aging. Steel slag from one source shall not be blended with steel slag from a different source.

**1004.3** The aggregate shall be in accordance with the following requirements for the grade specified in the contract. If grade is not specified, any listed grade may be used.

<b>Percent Passing</b>								
		<b>Sieve Size</b>						
<b>Grade</b>	<b>Type of Material</b>	<b>3/4 in.</b>	<b>1/2 in.</b>	<b>3/8 in.</b>	<b>#4</b>	<b>#8</b>	<b>#30</b>	<b>#200</b>
1	Crushed Stone or Porphyry	100	95 – 100	65 – 95	20 – 55	2 – 20	....	0 – 5
2	Gravel	100	95 – 100	....	40 – 80	15 – 50	0 – 30	0 – 5
3	Chat	100	95 – 100	....	45 – 85	30 – 60	0 – 30	0 – 5