

AGGREGATE GRADATION TABLE – ENGLISH

Percent Passing

Grad. No.	Section No.	Intended Use	1.5"	1.0"	3/4"	1/2"	3/8"	#4	#8	#30	#50	#100	#200	*Notes	
1	4110,4111,4125	PCC FA Cover Aggr.					100	90-100	70-100	10-60			0-1.5	1	
2	4112	Mortar Sand						100	95-100	40-75	10-40	0-30	0-3		
3	4115 (57, 2-8)	PCC CA	100	95-100		25-60		0-10	0-5				0-1.5	2	
4	4115 (2-8)	PCC CA	100	50-100	30-100	20-75	5-55	0-10	0-5				0-1.5		
5	4115 (67, 2-8)	PCC CA		100	90-100		20-55	0-10	0-5				0-1.5		
6	4115.06 (Repair & Overlay)	PCC CA			100	97-100	40-90	0-30					0-1.5		
7	4117 (Class V)	PCC FA & CA	100					80-92	60-75	20-40					
8	4117.03 (Class V)	Fine Limestone					100	90-100					0-30		
10	4120.02, 4120.03 (C Gravel)	Granular Surface			100			50-80	25-60					3	
11	4120.04,4120.05 (A, B, Cr. St.)	Granular Surface & Shoulder		100	95-100	70-90		30-55	15-40				6-16	4, 5	
12	4121	Granular Subbase	100					10-20			0-15		0-6	6	
13	4122.02 (Cr. St.)	Mac. St. Base	3" nominal maximum size – screen over 3/4" or 1.0" screen												
14	4123	Modified Subbase	100		70-90				10-40				3-10	5	
16	4120.07 (Cr. St.)	Paved Shoulder Fillet	100			0-50		0-10						7	
19	4125 (1/2" Cr. Gr. or Cr. St.)	Cover Aggregate			100	97-100	40-90	0-30	0-15				0-2		
20	4125 (1/2" Scr. Gr.)	Cover Aggregate			100	95-100	40-80	0-15	0-7				0-1.5		
21	4125 (3/8")	Cover Aggregate				100	90-100	10-55	0-20	0-7			0-1.5		
22	4125.02B	Fine Slurry Mixture					100	85-100	40-95	20-60	14-35	10-25	5-25	10	
23	4125.01B (Cr. St.)	Coarse Slurry Mixture					100	70-90	45-70	19-34	12-25	7-18	5-15		
29	4131	Porous Backfill			100	95-100	50-100	10-50	0-8						
30	4132.02 (Cr. St.)	Special Backfill	100						15-45				0-10	5	
31	4132.03 (Gravel)	Special Backfill		100	90-100	75-90			30-55				3-7		
32	4133 (Sand/Gr./Cr. St.)	Granular Backfill	100% passing the 3" screen							20-100				0-10	8, 9

Notes: Gradation Nos. 9, 15, 17, 18, 24, 26, 27, 28, 33 and 34 have been deleted.

*For numbered notes, see page 2.

1. When the fine aggregate is sieved through the following number sieves, 4, 8, 16, 30, 50, and 100, not more than 40% shall pass one sieve and be retained on the sieve with the next higher number, for Section 4110, and 45% for Section 4111.
2. When used in precast and prestressed concrete bridge beams, 100% shall pass the 1.0" sieve.
3. When compaction of material is a specification requirement, the minimum percent passing the #200 sieve is 6%.
4. See specifications for combination of gravel and limestone screenings.
5. Unwashed air-dried samples of crushed composite material shall be tested for gradation compliance except that no gradation determination will be made for the material passing the #200 sieve.
6. The gradation requirement for the #8 sieve shall be 8% to 30% when either gravel or crushed stone, without blending sand, is supplied.
7. Gradation 3 or 4 may be substituted at the Contractor's option.
8. Crushed stone shall have 100% passing the 1.0" sieve.
9. When granular backfill is used under Flowable mortar, one of the following alternative materials shall be used: natural sand compliant with Section 4110, except the % passing the #200 sieve shall not exceed 4%; gravel, crushed stone, or crushed concrete meeting the gradation requirements of Section 4121.
10. Gradation limitations for the 30, 50 and 100 (600 μ m, 300 μ m, and 150 μ m) sieves shall not apply when slurry mixture is applied by hand lutes, such as for slurry leveling.

Testing shall be done using sieves with nominal openings of 1 inch and 0.500 inches (25.0 mm and 12.5 mm) in lieu of 1.06 inch and 0.530 inch (26.5 mm and 13.2 mm) respectively.
HMA Gyratory gradation requirements are listed in IM 510, Appendix A.
QM-C gradation requirements are listed in IM 532.