

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	2,11	
4	4115 (2-8)	PCC CA	100	50-100	30-100	20-75	5-55	0-10	0-5				0-1.5	11	
5	4115 (67, 2-8)	PCC CA		100	90-100		20-55	0-10	0-5				0-1.5	11	
6	4115.06 (Repair & Overlay)	PCC CA			100	97-100	40-90	0-30					0-1.5	11	
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					3,4,5	
11	4120.04,4120.05 (A, B, Cr. St.)	Granular Surface & Shoulder		100	95-100	70-90		30-55	15-40				6-16	5	
12a	4121 (Cr. St.)	Granular Subbase	100			40-80			5-25				0-6	6	
12b	4121 (Gravel)	Granular Subbase	100			50-80			10-30		5-15		3-7	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 5% to 25% when recycled material 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.
11. The maximum percent passing the No. 200 (75 μ m) sieve for any coarse aggregate may be increased to 2.5% provided the documented production limit agreed to and maintained is 1.0% or less and any increase up to 2.5% consists of limestone or dolomite.

HMA Gyrotory gradation requirements are listed in IM 510, Appendix A.
QM-C gradation requirements are listed in IM 532.