

Size & Grading Requirements for Coarse Aggregates

(based on Laboratory Sieve Tests - Square Openings)

Size				Total Percent Passing																			
A.R.E.M.A.	Old Pa #	DelDOT	AASHTO #	4 inch 100mm	3-1/2 inch 90mm	3 inch 75mm	2-1/2 inch 63mm	2 inch 50mm	1-1/2 inch 37.5mm	1 inch 25mm	3/4 inch 19mm	1/2 inch 12.5mm	3/8 inch 9.5mm	#4 4.75mm	#8 2.36mm	#10 2mm	#16 1.18mm	#20 850 _{µm}	#40 425 _{µm}	#50	#100 150 _{µm}	#200	
-	4	1	1	100	90-100	-	25-60	-	0-15	-	0-5												
24	-		-	-	-	100	90-100	-	25-60	-	0-10	0-5											
		2	2			100	90-100	35-70	0-15		0-5												
			24			100	90-100		25-60		0-10	0-5											
25	-		-	-	-	100	80-100	60-85	50-70	25-50	-	5-20	0-10	0-3									
-	3A	3	3	-	-	-	100	90-100	35-70	0-15	-	0-5											
			357				100	95-100		35-70		10-30		0-5									
3	-		-	-	-	-	100	95-100	35-70	0-15	-	0-5											
4A	-		-	-	-	-	100	90-100	60-90	10-35	0-10	-	0-3										
		CR-1					100			50-80				20-50				10-30				2-20	
4	-		4	-	-	-	-	100	90-100	20-55	0-15	-	0-5										
-	-		467	-	-	-	-	100	95-100	-	35-70	-	10-30	0-5									
-	2RC		-	-	-	-	-	100	-	-	-	-	-	15-60	-		-			-		0-30	
-	2A		-	-	-	-	-	100	-	-	52-100	-	36-70	24-50	16-38		10-30			-	-	0-10	
-	OGS		-	-	-	-	-	100	-	-	52-100	-	36-65	8-40	-		0-12			-	-	0-5	
-	-		5	-	-	-	-	-	100	90-100	20-55	0-10	0-5										
			56						100	90-100	40-85	10-40	0-15	0-5									
5	-		-	-	-	-	-	-	100	90-100	40-75	15-35	0-15	0-5									
		crusher run							100		50-95			20-50			15-40					2-20	
57	2B	57	57	-	-	-	-	-	100	95-100	-	25-60	-	0-10	0-5								
			6							100	90-100	20-55	0-15	0-5									
-	2	67	67	-	-	-	-	-	-	100	90-100	-	20-55	0-10	0-5								
			68							100	90-100		30-65	5-25	0-10		0-5						
-	-		7	-	-	-	-	-	-	100	90-100	40-70	0-15	0-5									
			78								100	90-100	40-75	5-25	0-10		0-5						
-	1B	8	8	-	-	-	-	-	-	-	-	100	85-100	10-30	0-10		0-5						
			89									100	90-100	20-55	5-30		0-10				0-5		
-	-		9	-	-	-	-	-	-	-	-	-	100	85-100	10-40		0-10				0-5		
		Rice											100	70-100		0-20				0-10			0-5
-	1	10	10	-	-	-	-	-	-	-	-	-	100	85-100	-	-	-	-	-	-	-	10-30	

Notes:

1. A.R.E.M.A. = American Railway Engineering and Maintenance-of-Way Association
 * Gradation Numbers 24, 25, 3, 4A, and 4 are main line ballast materials
 * Gradation Numbers 5 and 57 are yard ballast materials
2. Old Pa # = The old Pennsylvania Department of Transportation reference to aggregate sizing
3. DelDOT = Delaware Department of Transportation specifications, Section 813 - Grading Requirements and Section 821 - Graded Aggregates. (CR-1 is referred to as Type A, & Crusher Run is Type B; both require LA Abrasion < 45%)
4. AASHTO = American Association of State Highway Transportation Officials