

# Delta Sand and Gravel, Inc.

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## Summary of Typical Aggregate Gradations & Test Results - April, 2017

Bank Run		Sized Double-Washed Crushed Gravel Stone						Processed Base Materials						Fine Aggregate/Sands													
% Pass	Bank * Run Gravel							% Pass	2" Minus Screened Gravel	1/2" Minus Screened Gravel	1-1/2" Minus CRUSHED Gravel	3/4" Minus CRUSHED Gravel	1/2" Minus CRUSHED Gravel	Hardpak	% Pass	Sand	Concrete Sand	Gravel Stone Dust	Beach Sand	Mason Sand	% Pass						
	1-1/2"	1"	3/4"	Blend	3/8"	1/4"	2"		1-1/2"	1"	3/4"	1/2"	3/8"			2"	1-1/2"	1"	3/4"	1/2"		3/8"	#4	#8	#16	#30	#50
2"	88							2"	100		100					2"											
1-1/2"	84	100						1-1/2"	95		96			100	1-1/2"												
1"	78	67	100	100	100			1"	90		84	100		99	1"												
3/4"	73	14	41	97	99			3/4"	83		77	92	89	89	3/4"												
1/2"	68	1	2	42	69	100		1/2"	76	100	70	81	100	76	1/2"												
3/8"	65	1	1	9	45	94	100	3/8"	7	92	65	74	90	67	3/8"	100		100									
#4	56			1	5	11	98	#4	59	73	57	61	61	52	#4	94	100	98									
#8	49				1	1	2	#8	49	61	50	50	46	40	#8	81	92	69	100	100							
#16	39					1	1	#16	36	45	42	41	34	29	#16	59	75	49	99	90							
#30	24							#30	20	24	28	30	26	18	#30	27	38	36	98	70							
#50	9							#50	10	9	12	15	19	10	#50	8	12	26	76	35							
#100	4							#100	4	4	5	7	12	5	#100	3	4	16	24	8							
#200	2							#200	2	2	2	3	6	3	#200	1	1	8	4	2							

Dry Rodded Wt (pcf)	94.2	100.5	105.2	102.5	98.2
Max Dry Unit W (Proctor) (pcf)					
Optimum Moisture (%)					
Maximum Wear (Abrasion) (%)				29.3	
Bulk Density (OD)				2.62	
Relative Density (SSD)				2.66	
Apparent Density				2.72	
Absorption (%)				1.30	
Soundness (%)				1.00	

*\*only the portion smaller than 3" is tested*

FM	3.28	2.79	3.06	2.03	2.97
			132.0	102.2	
			9.1	18.0	
			2.59		
			2.64		
			2.73		
			2.00		
			4.00		

Title 5 Sand		Title 5 % Passing #4 Sieve
% Pass	Title 5 Sand	
2"	100	
1-1/2"	99	
1"	96	
3/4"	94	
1/2"	91	
3/8"	88	
#4	82	100
#8	77	95
#16	68	83
#30	43	52
#50	15	19
#100	5	6
#200	1	2

Crushed Trap Rock				Processed Trap (Quarry) Rock			
% Pass	Crushed Trap Rock			% Pass	Processed Trap (Quarry) Rock		
	1-1/2"	3/4"	3/8"		Dense Graded (3/4" Trap Rock Gravel)	1/2" TRG (Trap Rock Gravel)	Quarry Stone Dust
2"	100			2"	100		
1-1/2"	96			1-1/2"	98		
1"	37	100		1"	81	100	
3/4"	10	92		3/4"	76	99	
1/2"	3	19	100	1/2"	67	91	
3/8"	2	3	97	3/8"	62	78	100
#4	1	2	17	#4	46	52	79
#8	1	1	2	#8	32	35	50
#16			1	#16	22	22	28
#30				#30	15	15	17
#50				#50	11	10	11
#100				#100	7	7	7
#200				#200	4	6	4

Dry Rodded Wt (pcf)	99.1	102.9	98.2
Max Dry Unit W (Proctor) (pcf)			
Optimum Moisture (%)			
Maximum Wear (Abrasion) (%)	12.0	12.0	12.0
Bulk Density (OD)	2.86	2.86	2.86
Relative Density (SSD)	2.87	2.87	2.87
Apparent Density	2.88	2.88	2.89
Absorption (%)	0.25	0.27	0.30

137.2	133.1
8.0	7.8

109.8
2.81
2.84
2.89
1.00

*Customer is responsible for product selection & independent testing for job requirements.*

**Local Independent Test Labs:**

**S.W. Cole Engineering**  
13 Delta Drive, Unit 8  
Londonderry, NH 03053  
Phone: (603) 716-2111  
Fax: (603) 716-2112

**Allied Testing Laboratories**  
115 St. George Road  
Springfield, MA 01104  
Phone: (413) 736-1846  
Fax: (413) 736-1838

**Advance Testing Company, Inc.**  
3348 Route 208  
Campbell Hall, NY 10916  
Phone: (845) 496-1600  
Fax: (845) 496-1398

**Delta offers many more materials than are shown on this summary sheet. Refer to the current price sheet.**