

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

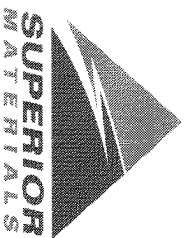
Sample Date: **5/2/22**

Dates Test Represents: **5/3/2022** through **5/9/2022**

Concrete Grade: **DM 4500HP**

Contractor: _____

MDOT No.: _____



Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %
6AA	58-003	Stoneco	1525	9.09	2.69	51.6
26A	58-003	Stoneco	280	1.67	2.69	9.5
2NS	81-019	Pleasant Lake	1150	6.95	2.65	38.9
Total Wt						17.71
						100.0

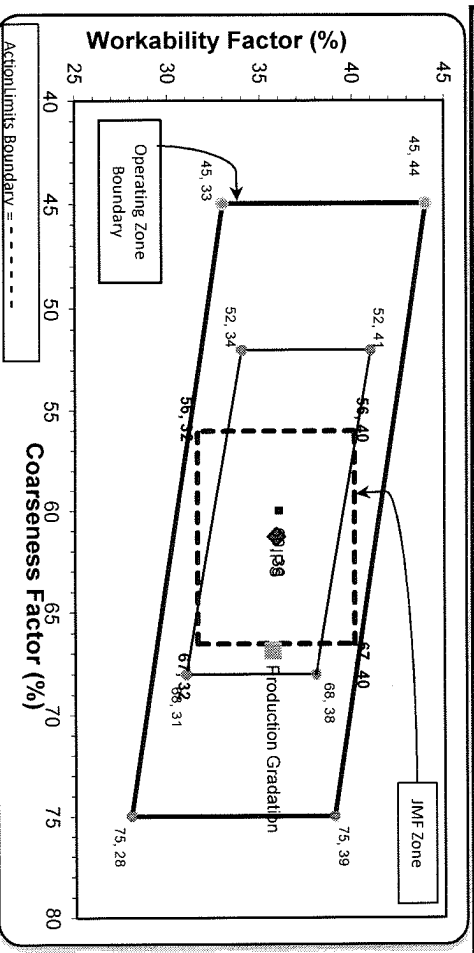
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	79.5	100.0	100.0	89.4	10.6	10.6
1/2"	34.2	99.6	100.0	66.0	23.4	34.0
3/8"	15.3	89.7	100.0	55.3	10.7	44.7
#4	2.9	10.0	98.1	40.6	14.7	59.4
#8	1.5	3.4	82.4	33.2	7.5	66.8
#16	1.2	2.6	64.8	26.1	7.1	73.9
#30	1.1	2.2	47.4	19.2	6.9	80.8
#50	1.1	2.0	23.7	10.0	9.2	90.0
#100	1.0	1.9	7.9	3.8	6.2	96.2
LBW	0.7	1.8	1.9	1.3	2.5	98.7

Verify this number is 100%

*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max.
 nom. max. #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max.
 nom. max. #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when
 a 2" max. size (nom. Max. 1.5") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **67** Workability Factor: **33** Adjusted WF: **35.7**



Sieve	% Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By: _____



Plant S102-Superior Novi
Product 1022-2NS GR
Period: 05/01/2022 - 05/07/2022

Name/Title Doug Storey / QC Technician
Report Date 05/06/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	98.1	%	95-100
	#8 (2.36mm)	82.4	%	65-95
	#16 (1.18mm)	64.8	%	35-75
	#30 (.6mm)	47.4	%	20-55
	#50 (.3mm)	23.7	%	10-30
	#100 (.15mm)	7.9	%	0-10
	#200 (75µm)	2.4	%	
	FM	2.76		2.6-3
	Wash Loss (#200/75um)	1.9	%	0-3
	Total Moisture	5.32	%	



Plant S102-Superior Novi
Product 1067-26A Mod LS
Period: 05/01/2022 - 05/07/2022

Name/Title Doug Storey / QC Technician
Report Date 05/06/2022

Procedure	Sieve/Test	Result	Unit	26A Mod LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	99.6	%	95-100
	3/8" (9.5mm)	89.7	%	60-95
	#4 (4.75mm)	10.0	%	5-30
	#8 (2.36mm)	3.4	%	0-12
	#16 (1.18mm)	2.6	%	
	#30 (.6mm)	2.2	%	
	#50 (.3mm)	2.0	%	
	#100 (.15mm)	1.9	%	
	#200 (75µm)	1.8	%	
	Wash Loss (#200/75um)	1.8	%	0-3
	Total Moisture	4.80	%	



Plant S102-Superior Novi
Product 1051-6AA LS
Period: 05/01/2022 - 05/07/2022

Name/Title Doug Storey / QC Technician
Report Date 05/06/2022

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	100.0	%	95-100
	3/4" (19mm)	79.5	%	
	1/2" (12.5mm)	34.2	%	30-60
	3/8" (9.5mm)	15.3	%	
	#4 (4.75mm)	2.9	%	0-8
	#8 (2.36mm)	1.5	%	
	#16 (1.18mm)	1.2	%	
	#30 (.6mm)	1.1	%	
	#50 (.3mm)	1.1	%	
	#100 (.15mm)	1.0	%	
	#200 (75µm)	0.87	%	
	Wash Loss (#200/75um)	0.7	%	0-2
	Total Moisture	3.64	%	