

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

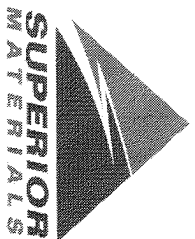
Sample Date: **2/26/24**

Dates Test Represents: **2/27/2024** through **3/4/2024**

Concrete Grade: **DM, 4500HP**

Contractor: _____

MDOT No.: _____



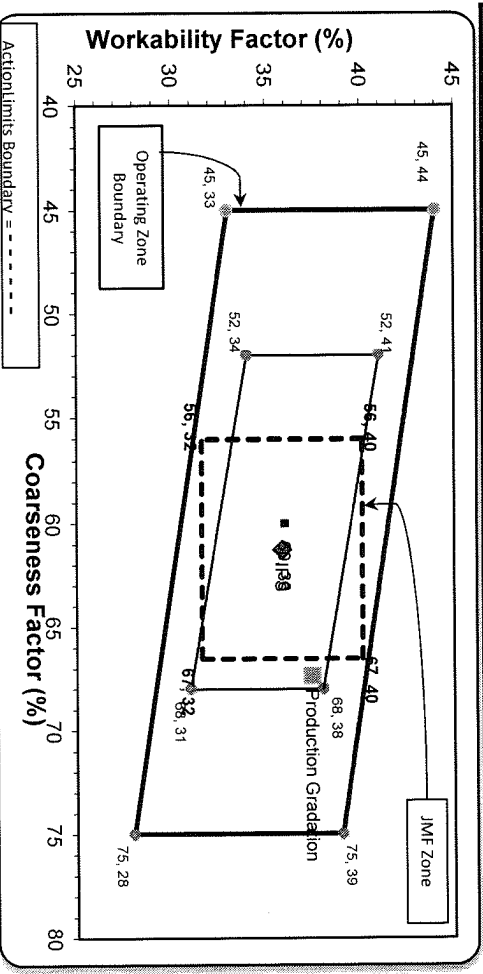
Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

Agg. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1400	8.34	2.69	47.5
26A	58-003	Stoneco	400	2.38	2.69	13.6
2NS	63-114	Highland	1150	6.95	2.65	39.0
			Total Wt:	2950		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"	74.5	100.0	100.0	87.9	12.1	12.1
1/2"	29.9	97.6	100.0	66.4	33.6	33.6
3/8"	12.0	84.8	100.0	56.2	43.8	43.8
#4	2.5	17.3	99.1	42.2	57.8	57.8
#8	1.8	6.9	85.0	34.9	65.1	65.1
#16	1.6	4.7	67.4	27.7	72.3	72.3
#30	1.6	4.0	49.5	20.6	79.4	79.4
#50	1.5	3.4	20.7	9.2	90.8	90.8
#100	1.4	3.1	4.2	2.7	97.3	97.3
LBW	1.3	2.8	0.8	1.3	98.7	98.7

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **67** Workability Factor: **35** Adjusted WF: **37.4**



Sieve	Cumulative % 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

*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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

PREPARED BY:
SM, LLC Technical Service

Approved By: _____



Plant S102-Superior Novi

Product 1051-6AA LS

Period: 02/25/2024 - 03/02/2024

Name/Title Doug Storey / QC Technician

Report Date 03/01/2024

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)	74.5	%	30-60
	1/2" (12.5mm)	29.9	%	
	3/8" (9.5mm)	12.0	%	
	#4 (4.75mm)	2.5	%	0-8
	#8 (2.36mm)	1.8	%	
	#16 (1.18mm)	1.6	%	
	#30 (.6mm)	1.6	%	
	#50 (.3mm)	1.5	%	
	#100 (.15mm)	1.4	%	
	#200 (.075mm)	1.38	%	
	Wash Loss (#200/75um)	1.3	%	0-2
	Total Moisture	2.06	%	



Plant S102-Superior Novi

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 02/25/2024 - 03/02/2024

Report Date 03/01/2024

Procedure Sieve/Test Result Unit

26A Mod LS Spec

Procedure	Sieve/Test	Result	Unit
	2" (50mm)	100.0	%
	1 1/2" (37.5mm)	100.0	%
	1" (25mm)	100.0	%
	3/4" (19mm)	100.0	%
	1/2" (12.5mm)	97.6	%
	3/8" (9.5mm)	84.8	%
	#4 (4.75mm)	17.3	%
	#8 (2.36mm)	6.9	%
	#16 (1.18mm)	4.7	%
	#30 (.6mm)	4.0	%
	#50 (.3mm)	3.4	%
	#100 (.15mm)	3.1	%
	#200 (.75mm)	3.0	%
	Wash Loss (#200/75um)	2.8	%
	Total Moisture	3.18	%

100-100

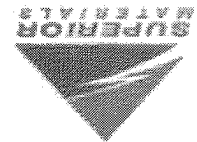
95-100

60-95

5-30

0-12

0-3



Plant S102-Superior Novi

Product 1022-2NS GR

Name/Title Doug Storey / QC Technician

Period: 02/25/2024 - 03/02/2024

Report Date 03/01/2024

Procedure	Sieve/Test	Result	Unit	Procedure
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	99.1	%	95-100
	#8 (2.36mm)	85.0	%	65-95
	#16 (1.18mm)	67.4	%	35-75
	#30 (6mm)	49.5	%	20-55
	#50 (.3mm)	20.7	%	10-30
	#100 (.15mm)	4.2	%	0-10
	#200 (.75um)	1.1	%	
	FM	2.74		2.6-3
	Wash Loss (#200/75um)	0.8	%	0-3
	Total Moisture	2.93	%	

ZNS GR Spec