

# Aggregate Optimization Chart

# Production Gradation Report

PLANT #: **P-102**

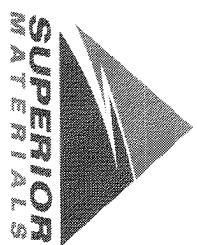
Sample Date: **3/11/24**

Dates Test Represents: **3/12/2024** through **3/18/2024**

Concrete Grade: **DM, 4500HP**

Contractor: \_\_\_\_\_

MDOT No.: \_\_\_\_\_



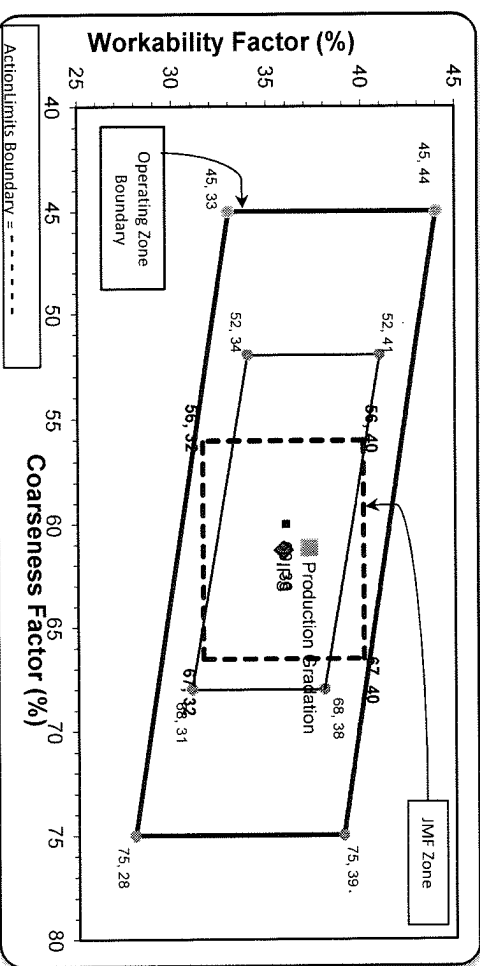
**Superior Materials, LLC**  
30701 W. 10 Mile Rd.  
Suite 500  
Farmington Hills, MI 48336

Agg. Class	Pit #	Source	Weight (ss)	ft <sup>3</sup>	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
<b>Total Wt:</b>						<b>2950</b>
						<b>17.68</b>
						<b>100.0</b>

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"	99.2	100.0	100.0	99.6	0.4	0.4
3/4"	83.6	100.0	100.0	92.2	7.4	7.8
1/2"	40.2	98.0	100.0	71.3	20.9	28.7
3/8"	20.0	85.6	100.0	60.1	11.3	39.9
#4	4.5	12.7	98.9	42.4	17.7	57.6
#8	2.3	4.6	84.7	34.7	7.7	65.3
#16	1.8	3.0	65.4	26.8	8.0	73.2
#30	1.6	2.6	45.6	18.9	7.9	81.1
#50	1.5	2.3	18.4	8.2	10.7	91.8
#100	1.4	2.2	4.0	2.5	5.7	97.5
LBW	1.2	2.0	1.1	1.3	1.3	98.7

\*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.

Production Gradation	<input checked="" type="radio"/> Batch Plant Gradations	<input type="radio"/> Aggregate Supplier Gradations
Coarseness Factor:	<b>61</b>	Workability Factor: <b>35</b>
Adjusted WF		<b>37.2</b>



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

PREPARED BY:  
SM, LLC Technical Service

Approved By: \_\_\_\_\_



**Plant** S102-Superior Novi

**Product** 1051-6AA LS

**Name/Title** Doug Storey / QC Technician

**Period:** 03/10/2024 - 03/16/2024

**Report Date** 03/16/2024

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	99.2	%	95-100
	3/4" (19mm)	83.6	%	
	1/2" (12.5mm)	40.2	%	30-60
	3/8" (9.5mm)	20.0	%	
	#4 (4.75mm)	4.5	%	0-8
	#8 (2.36mm)	2.3	%	
	#16 (1.18mm)	1.8	%	
	#30 (.6mm)	1.6	%	
	#50 (.3mm)	1.5	%	
	#100 (.15mm)	1.4	%	
	#200 (75µm)	1.34	%	
	Wash Loss (#200/75um)	1.2	%	0-2
	Total Moisture	1.78	%	



Plant S102-Superior Novi

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 03/10/2024 - 03/16/2024

Report Date 03/16/2024

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)	98.0	%	95-100
	3/8" (9.5mm)	85.6	%	60-95
	#4 (4.75mm)	12.7	%	5-30
	#8 (2.36mm)	4.6	%	0-12
	#16 (1.18mm)	3.0	%	
	#30 (.6mm)	2.6	%	
	#50 (.3mm)	2.3	%	
	#100 (.15mm)	2.2	%	
	#200 (75µm)	2.1	%	
	Wash Loss (#200/75um)	2.0	%	0-3
	Total Moisture	2.10	%	



Plant S102-Superior Novi

Product 1022-2NS GR

Name/Title Doug Storey / QC Technician

Period: 03/10/2024 - 03/16/2024

Report Date 03/16/2024

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	98.9	%	95-100
	#8 (2.36mm)	84.7	%	65-95
	#16 (1.18mm)	65.4	%	35-75
	#30 (.6mm)	45.6	%	20-55
	#50 (.3mm)	18.4	%	10-30
	#100 (.15mm)	4.0	%	0-10
	#200 (75µm)	1.3	%	
	FM	2.83		2.6-3
	Wash Loss (#200/75um)	1.1	%	0-3
	Total Moisture	2.16	%	