

# Aggregate Optimization Chart

**PLANT #:** **P-102**

Sample Date: 7/29/24

Concrete Grade: **DM, 4500HP**

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

Dates Test Represents: 7/30/2024 through 8/5/2024

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

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1500	8.94	2.69	50.8
26A	58-003	Stoneco	300	1.79	2.69	10.2
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>

<----- Verify this number is 100%

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"	99.5	100.0	100.0	99.7	0.3	0.3
3/4"	84.0	100.0	100.0	91.9	7.9	8.1
1/2"	39.6	99.4	100.0	69.2	22.6	30.8
3/8"	18.1	88.6	100.0	57.2	12.0	42.8
#4	2.3	6.7	98.4	40.2	17.0	59.8
#8	1.5	1.8	84.7	34.0	6.2	66.0
#16	1.3	1.3	68.5	27.5	6.5	72.5
#30	1.2	1.2	48.0	19.4	8.1	80.6
#50	1.1	1.1	18.4	7.8	11.6	92.2
#100	1.0	1.1	3.3	1.9	5.9	98.1
LBW	0.9	1.0	0.5	0.8	1.2	99.2



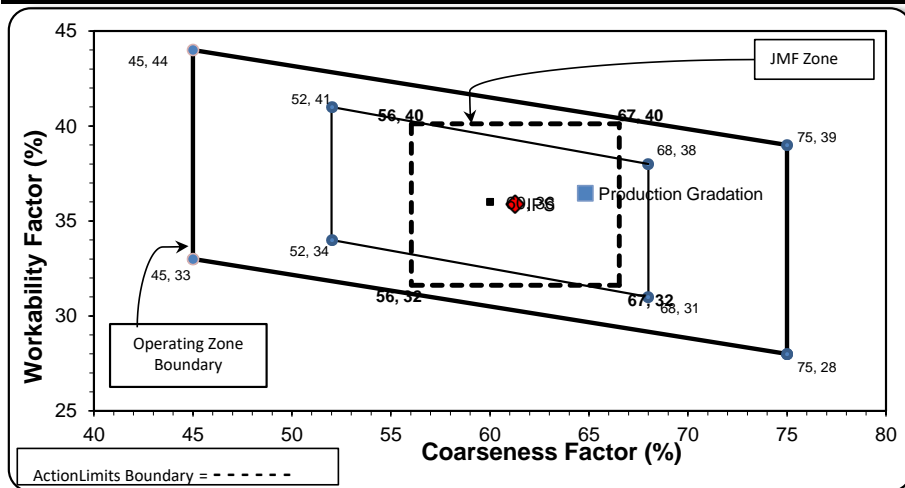
**Superior Materials, LLC**  
 30701 W. 10 Mile Rd.  
 Suite 500  
 Farmington Hills, MI 48336

\*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  Batch Plant Gradations  Aggregate Supplier Gradations  Adjusted WF Initial Production Sample (IPS)

<b>Coarseness Factor:</b>	<b>65</b>	<b>Workability Factor:</b>	<b>34</b>	<b>36.5</b>
---------------------------	-----------	----------------------------	-----------	-------------

<b>Coarseness Factor:</b>	<b>61</b>		
<b>Workability Factor:</b>	<b>36</b>		
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



PREPARED BY:  
 SM, LLC Technical Service

Approved By:



# Daily Summary Report

Date Wednesday, July 31, 2024

Sample Id	-1376933866	-674971569	-1989656476	-674971447	-674985598
Plant	S102 Superior Novi	S102 Superior Novi	S102 Superior Novi	S102 Superior Novi	S102 Superior Novi
Product	7919 COARSE AGG P1M LS	1051 6AA LS	7920 INTERMED AGG P1M LS	1067 26A Mod LS	1022 2NS GR
Specification	Coarse Agg P1M LS Target	6AA LS	Intermed Agg P1M LS Target	26A Mod LS Spec	2NS GR Spec
Sample Type	QA	QA	QA	QA	QA
Time	08:57	09:00	09:02	09:03	09:08
2" (50mm)	100.0	100.0	100.0	100.0	
1 1/2" (37.5mm)	100.0	100.0	100.0	100.0	
1" (25mm)	69.5	99.5	100.0	100.0	
3/4" (19mm)	36.8	84.0	100.0	100.0	
1/2" (12.5mm)	14.8	39.6	94.4	99.4	
3/8" (9.5mm)	8.2	18.1	77.6	88.6	100.0
#4 (4.75mm)	2.5	2.3	22.2	6.7	98.4
#8 (2.36mm)	1.8	1.5	7.6	1.8	84.7
#16 (1.18mm)	1.6	1.3	4.0	1.3	68.5
#30 (.6mm)	1.5	1.2	2.9	1.2	48.0
#50 (.3mm)	1.4	1.1	2.6	1.1	18.4
#100 (.15mm)	1.3	1.0	2.4	1.1	3.3
#200 (75µm)	1.2	0.97	2.3	1.1	0.6
Pan	0.0	0.00	0.0	0.0	0.0
FM					2.79
Wash Loss (#200/75um)	1.2	0.9	2.2	1.0	0.5
Total Moisture	2.96	2.65	4.95	4.46	3.58