

# Aggregate Optimization Chart

**PLANT #:** p11

Sample Date: 7/29/24

Concrete Grade: S2M, 3500HP

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

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

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

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1550	9.48	2.62	50.8
26A	71-47	Presque Isle	270	1.65	2.62	8.9
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
<b>Total Wt</b>			<b>3050</b>	<b>18.57</b>		<b>100.0</b>

<---- Verify this number is 100%



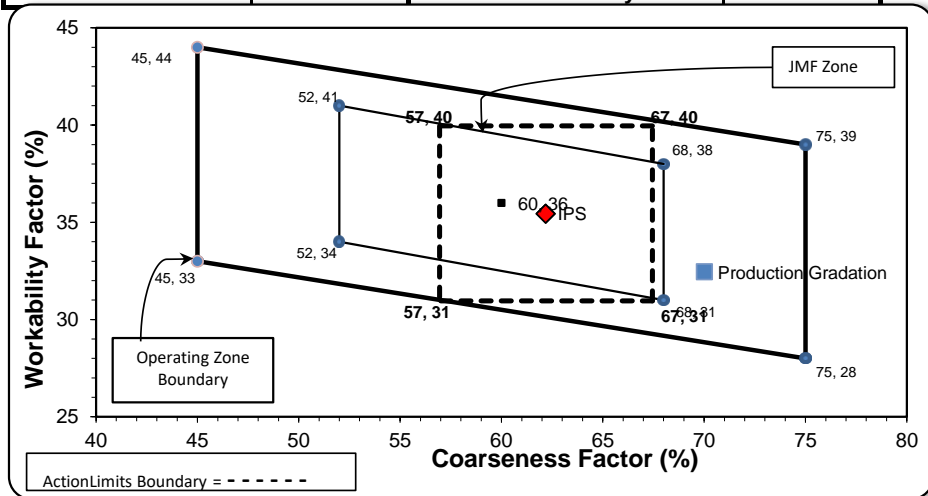
**Superior Materials, LLC**  
 30701 W. 10 Mile Rd.  
 Suite 500  
 Farmington Hills, MI 48336

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"	97.2	100.0	100.0	98.6	1.4	1.4
3/4"	72.2	100.0	100.0	85.9	12.7	14.1
1/2"	22.3	95.0	100.0	60.1	25.8	39.9
3/8"	9.9	83.1	100.0	52.7	7.4	47.3
#4	2.6	17.1	95.5	41.3	11.4	58.7
#8	2.0	4.4	77.0	32.5	8.9	67.5
#16	1.9	2.9	60.5	25.6	6.8	74.4
#30	1.8	2.6	45.9	19.7	6.0	80.3
#50	1.7	2.4	27.0	12.0	7.7	88.0
#100	1.6	2.3	8.3	4.4	7.6	95.6
LBW	1.3	2.1	0.9	1.2	3.2	98.8

\*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

<b>Coarseness Factor:</b>	<b>70</b>	<b>Workability Factor:</b>	<b>32</b>
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Initial Production Sample (IPS)

<b>Coarseness Factor:</b>	<b>62</b>		
<b>Workability Factor:</b>	<b>35</b>		
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

PREPARED BY:  
 SM, LLC Technical Service

Approved By:



# Daily Summary Report

Date Tuesday, July 30, 2024

	Sample Id - 674930923	-674933282	-674980765	-719225358	-674913103
Plant	S11	S11	S11	S11	S11
Product	INTERMED AGG P1M LS	2NS GR	6AA LS	26A Mod LS	COARSE AGG P1M LS
Specification	Intermed Agg P1M LS Target	2NS GR Spec	6AA LS	26A Mod LS Spec	Coarse Agg P1M LS Target
Sample Type	QA	QA	QA	QA	QA
Time	07:20	07:30	09:09	09:11	14:49
2" (50mm)	100.0		100.0	100.0	100.0
1 1/2" (37.5mm)	100.0		100.0	100.0	87.8
1" (25mm)	100.0		97.2	100.0	22.6
3/4" (19mm)	98.9		72.2	100.0	6.0
1/2" (12.5mm)	72.8		22.3	95.0	1.7
3/8" (9.5mm)	45.1	100.0	9.9	83.1	1.7
#4 (4.75mm)	6.6	95.5	2.6	17.1	1.6
#8 (2.36mm)	2.2	77.0	2.0	4.4	1.5
#16 (1.18mm)	1.6	60.5	1.9	2.9	1.5
#30 (.6mm)	1.5	45.9	1.8	2.6	1.4
#50 (.3mm)	1.4	27.0	1.7	2.4	1.3
#100 (.15mm)	1.3	8.3	1.6	2.3	1.2
#200 (75µm)	1.2	1.2	1.44	2.2	1.1
Pan	0.0	0.0	0.00	0.0	0.0
FM		2.86			
Wash Loss (#200/75um)	1.2	0.9	1.3	2.1	1.1
Total Moisture	2.30	4.67	2.99	4.27	1.24