

Aggregate Optimization Chart

PLANT #: p11

Sample Date: 7/28/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 7/29/2025 through 8/4/2025

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1520	9.30	2.62	49.8
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
Total Wt			3050	18.57		100.0

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



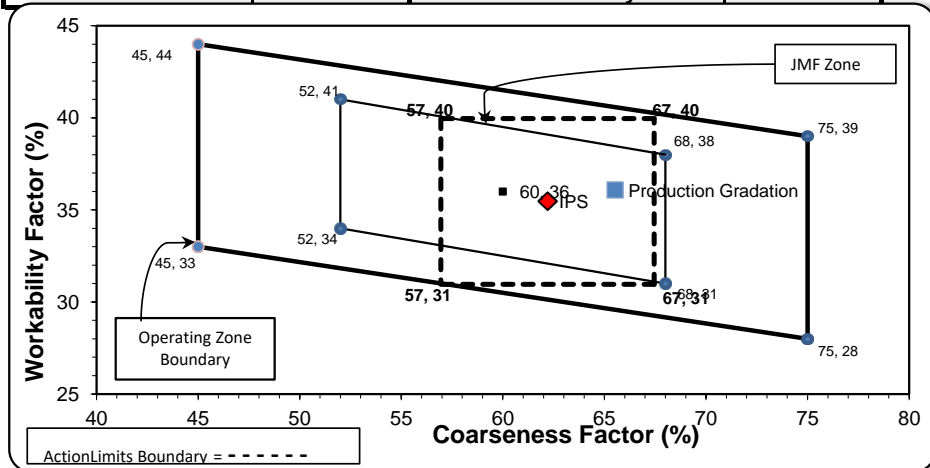
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

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"	94.1	100.0	100.0	97.1	2.9	2.9
3/4"	79.1	100.0	100.0	89.6	7.5	10.4
1/2"	38.8	95.9	100.0	69.1	20.5	30.9
3/8"	19.5	82.1	100.0	58.1	11.0	41.9
#4	3.7	21.8	98.9	43.9	14.2	56.1
#8	2.5	8.2	84.4	36.1	7.8	63.9
#16	2.2	4.7	67.6	28.8	7.3	71.2
#30	2.0	3.9	49.2	21.2	7.6	78.8
#50	2.0	3.6	21.5	10.0	11.2	90.0
#100	1.8	3.3	4.2	2.9	7.1	97.1
LBW	1.5	2.9	0.5	1.2	1.7	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

Coarseness Factor: 66 **Workability Factor:** 36



Initial Production Sample (IPS)

Coarseness Factor: 62
Workability Factor: 35

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 29, 2025

Sample Id	-674956780	-674937378	-7412727	-1989624344	-1989617831
Plant	S000 Onsite Jefferson	S000 Onsite Jefferson	S000 Onsite Jefferson	S000 Onsite Jefferson	S000 Onsite Jefferson
Product	7920 INTERMED AGG P1M LS	1051 6AA LS	7919 COARSE AGG P1M LS	1067 26A Mod LS	1022 2NS GR
Specification	Intermed Agg P1M LS Target		Coarse Agg P1M LS Target	26A Mod LS Spec	2NS GR Spec
Sample Type	QA	QA	QA	QA	QA
2" (50mm)	100.0	100.0	100.0	100.0	
1 1/2" (37.5mm)	100.0	100.0	95.6	100.0	
1" (25mm)	100.0	94.1	38.0	100.0	
3/4" (19mm)	97.4	79.1	10.0	100.0	
1/2" (12.5mm)	76.7	38.8	3.6	95.9	
3/8" (9.5mm)	49.9	19.5	2.9	82.1	100.0
#4 (4.75mm)	9.8	3.7	2.4	21.8	98.9
#8 (2.36mm)	4.0	2.5	2.2	8.2	84.4
#16 (1.18mm)	3.0	2.2	2.0	4.7	67.6
#30 (.6mm)	2.7	2.0	1.9	3.9	49.2
#50 (.3mm)	2.6	2.0	1.8	3.6	21.5
#100 (.15mm)	2.4	1.8	1.6	3.3	4.2
#200 (75µm)	2.2	1.66	1.4	3.0	0.6
Pan	0.0	0.00	0.0	0.0	0.0
FM					2.74
-#200 (75um)					0.6
Wash Loss (#200/75um)	2.1	1.5	1.3	2.9	0.5
Total Moisture	11.1	2.5	2.3	2.6	2.5

Aggregate Optimization Chart

PLANT #: **P-02**

Sample Date: 7/28/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 7/29/2025 through 8/4/2025

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1520	9.30	2.62	49.8
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
Total Wt			3050	18.57		100.0

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



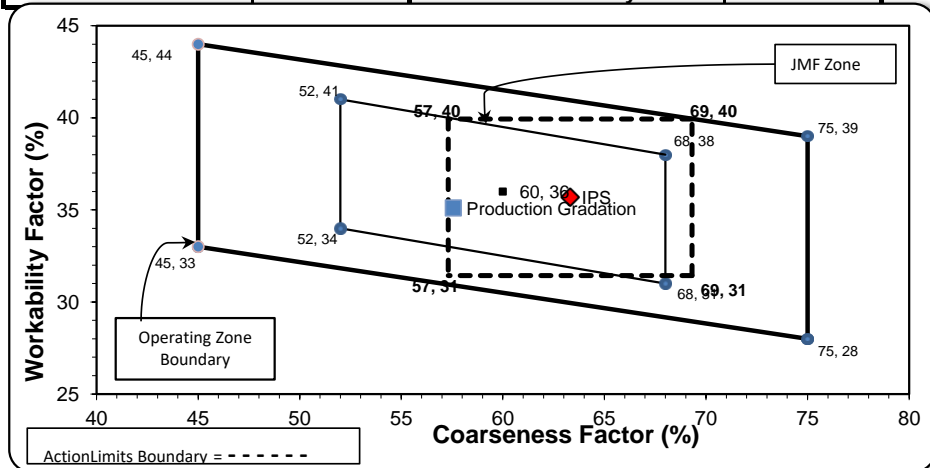
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

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"	98.6	100.0	100.0	99.3	0.7	0.7
3/4"	86.2	100.0	100.0	93.1	6.2	6.9
1/2"	51.3	98.1	100.0	75.5	17.6	24.5
3/8"	27.8	86.1	100.0	62.7	12.9	37.3
#4	7.1	25.3	96.4	44.9	17.7	55.1
#8	3.4	9.3	80.6	35.1	9.8	64.9
#16	2.6	5.2	62.8	27.1	8.0	72.9
#30	2.4	4.2	46.0	20.2	7.0	79.8
#50	2.2	3.8	22.5	10.5	9.6	89.5
#100	2.1	3.4	6.2	3.9	6.7	96.1
LBW	1.9	2.9	1.2	1.7	2.2	98.3

*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.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **58** **Workability Factor:** **35**



Initial Production Sample (IPS)

Coarseness Factor: **63**
Workability Factor: **36**

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"	95.6	4.4	4.4
1/2"	73.1	22.6	26.9
3/8"	59.3	13.8	40.7
#4	42.8	16.5	57.2
#8	35.7	7.1	64.3
#16	28.9	6.8	71.1
#30	20.7	8.2	79.3
#50	9.9	10.8	90.1
#100	2.1	7.8	97.9
LBW	0.9	1.2	99.1

PREPARED BY:
 SM, LLC Technical Service

Approved By:



Daily Summary Report

Date Friday, August 1, 2025

Sample Id	-667669140	-674942325	-674929584
Plant	Superior Hoover	Superior Hoover	Superior Hoover
Product	1051 6AA LS	1067 26A Mod LS	1022 2NS GR
Specification	6AA LS	26A Mod LS Spec	2NS GR Spec
Sample Type	QA	QA	QA
2" (50mm)	100.0	100.0	
1 1/2" (37.5mm)	100.0	100.0	
1" (25mm)	98.6	100.0	
3/4" (19mm)	86.2	100.0	
1/2" (12.5mm)	51.3	98.1	
3/8" (9.5mm)	27.8	86.1	100.0
#4 (4.75mm)	7.1	25.3	96.4
#8 (2.36mm)	3.4	9.3	80.6
#16 (1.18mm)	2.6	5.2	62.8
#30 (.6mm)	2.4	4.2	46.0
#50 (.3mm)	2.2	3.8	22.5
#100 (.15mm)	2.1	3.4	6.2
#200 (75µm)	2.01	3.1	1.4
Pan	0.00	0.0	0.0
FM			2.86
Wash Loss (#200/75um)	1.9	2.9	1.2
Total Moisture	3.00	3.19	3.93