Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-103

Sample Date: 7/7/25

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 7/8/2025 through 7/14/2025

Contractor: ____________________

MDOT No.: ____________________

Agg. Class	Pit #	Source	Weight (SSD)	ft^3	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	52.5
26A	58-003	Stoneco	250	1.49	2.69	8.5
2NS	63-114	Highland	1150	6.95	2.65	39.0
		Total Wt	**2950**	**17.68**		100.0

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

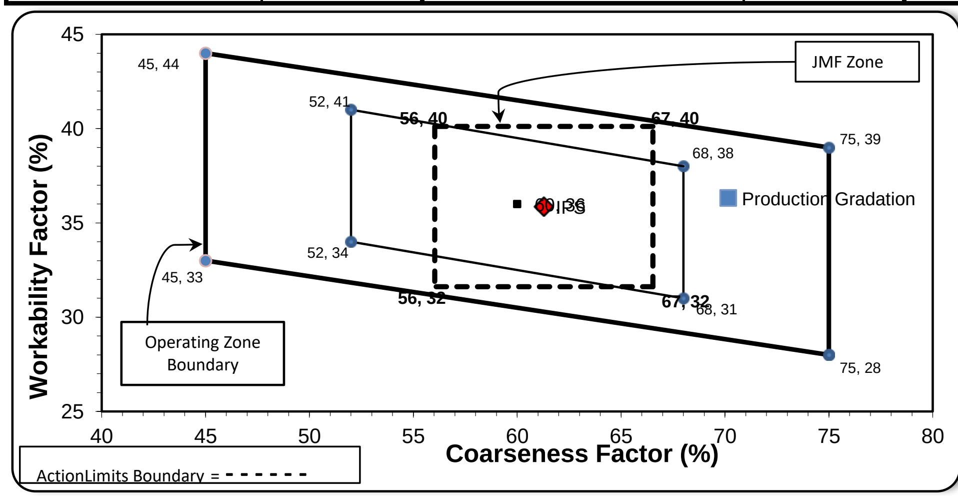
Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

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"	98.7	100.0	100.0	99.3	0.7	0.7
3/4"	72.6	100.0	100.0	85.6	13.7	14.4
1/2"	28.2	99.3	100.0	62.2	23.4	37.8
3/8"	13.5	88.5	100.0	53.6	8.6	46.4
#4	3.1	7.1	98.7	40.7	12.9	59.3
#8	1.9	2.3	83.7	33.8	6.9	66.2
#16	1.6	1.7	67.6	27.3	6.5	72.7
#30	1.5	1.5	48.9	20.0	7.4	80.0
#50	1.5	1.4	18.1	8.0	12.0	92.0
#100	1.5	1.3	3.2	2.1	5.8	97.9
LBW	1.4	1.2	0.6	1.1	1.1	98.9

*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:	70	Workability Factor:	34	Adjusted WF 36.3



Intial Production Sample (IPS)

Coarseness Factor:	61
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"	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 9, 2025		
Sample Id	-1989635966	-1989616308	-674906535
Plant	S103 Superior Brighton	S103 Superior Brighton	S103 Superior Brighton
Product	1051 6AA LS	1022 2NS GR	1067 26A Mod LS
Specification	6AA LS	2NS GR Spec	26A Mod LS Spec
Sample Type	QA	QA	QA
2" (50mm)	100.0		100.0
1 1/2" (37.5mm)	100.0		100.0
1" (25mm)	98.7		100.0
3/4" (19mm)	72.6		100.0
1/2" (12.5mm)	28.2		99.3
3/8" (9.5mm)	13.5	100.0	88.5
#4 (4.75mm)	3.1	98.7	7.1
#8 (2.36mm)	1.9	83.7	2.3
#16 (1.18mm)	1.6	67.6	1.7
#30 (.6mm)	1.5	48.9	1.5
#50 (.3mm)	1.5	18.1	1.4
#100 (.15mm)	1.5	3.2	1.3
#200 (75µm)	1.46	0.8	1.3
Pan	0.00	0.0	0.0
FM		2.80	
Wash Loss (#200/75um)	1.4	0.6	1.2
Total Moisture	2.75	5.50	4.84

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **p11**

Sample Date: 7/7/25

Concrete Grade: **DM, 4500HP**

Contractor: ____________

Dates Test Represents: 7/8/2025 through 7/14/2025

MDOT No.: ____________

Agg. Class	Pit #	Source	Weight (SSD)	ft^3	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9
26A	71-47	Presque Isle	305	1.87	2.62	10.5
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6
		Total Wt	**2905**	**17.69**		100.0

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

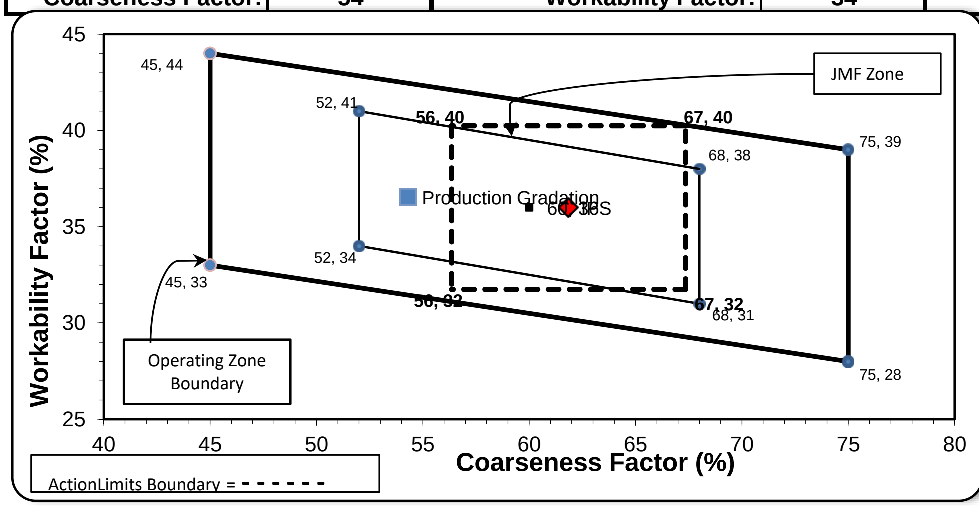
Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

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"	98.2	100.0	100.0	99.1	0.9	0.9
3/4"	87.2	100.0	100.0	93.6	5.5	6.4
1/2"	52.5	96.6	100.0	75.9	17.7	24.1
3/8"	31.3	85.5	100.0	64.2	11.7	35.8
#4	5.8	21.4	96.4	43.3	20.9	56.7
#8	3.1	7.5	80.1	34.0	9.3	66.0
#16	2.6	4.4	61.9	26.3	7.8	73.7
#30	2.4	3.6	42.8	18.5	7.7	81.5
#50	2.3	3.2	20.3	9.5	9.0	90.5
#100	2.1	2.9	5.1	3.4	6.1	96.6
LBW	1.9	2.6	1.1	1.7	1.7	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:	54	Workability Factor:	34	Adjusted WF 36.5



Intial Production Sample (IPS)

Coarseness Factor:	**62**
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"	95.0	5.0	5.0
1/2"	72.3	22.8	27.7
3/8"	60.4	11.8	39.6
#4	42.6	17.8	57.4
#8	36.0	6.6	64.0
#16	29.5	6.5	70.5
#30	20.3	9.2	79.7
#50	9.5	10.8	90.5
#100	3.4	6.1	96.6
LBW	1.3	2.1	98.7

Approved By:

PREPARED BY:
SM, LLC Technical Service

EDW. C. LEVY CO.
8800 Dix Avenue, Detroit, MI 48209
(313) 843-7200

Daily Summary Report

Date Thursday, July 10, 2025

Sample Id	-1989618344	-1376933361	-674983162	-1989616781	-674982214
Plant	Onsite Jefferson	Onsite Jefferson	Onsite Jefferson	Onsite Jefferson	Onsite Jefferson
Product	7919 COARSE AGG P1M LS	1067 26A Mod LS	1022 2NS GR	1051 6AA LS	7920 INTERMED AGG P1M LS
Specification	Coarse Agg P1M LS Target	26A Mod LS Spec	2NS GR Spec		Intermed Agg P1M LS Target
Sample Type	QA	QA	QA	QA	QA
2" (50mm)	100.0	100.0		100.0	100.0
1 1/2" (37.5mm)	97.5	100.0		100.0	100.0
1" (25mm)	34.0	100.0		98.2	100.0
3/4" (19mm)	7.1	100.0		87.2	97.6
1/2" (12.5mm)	1.7	96.6		52.5	71.7
3/8" (9.5mm)	1.5	85.5	100.0	31.3	46.7
#4 (4.75mm)	1.4	21.4	96.4	5.8	9.3
#8 (2.36mm)	1.4	7.5	80.1	3.1	3.7
#16 (1.18mm)	1.3	4.4	61.9	2.6	2.8
#30 (.6mm)	1.3	3.6	42.8	2.4	2.5
#50 (.3mm)	1.2	3.2	20.3	2.3	2.4
#100 (.15mm)	1.1	2.9	5.1	2.1	2.3
#200 (75µm)	1.0	2.7	1.5	1.95	2.1
Pan	0.0	0.0	0.0	0.00	0.0
FM			2.93		
-#200 (75um)			1.5		
Wash Loss (#200/75um)	1.0	2.6	1.1	1.9	2.0
Total Moisture	2.4	3.6	5.3	2.4	2.8

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-O2**

Sample Date: 7/7/25

Dates Test Represents: 7/8/2025 through 7/14/2025

Concrete Grade: **DM, 4500HP**

Contractor: ______________

MDOT No.: ______________

Agg. Class	Pit #	Source	Weight (SSD)	ft^3	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9
26A	71-47	Presque Isle	305	1.87	2.62	10.5
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6
		Total Wt	**2905**	**17.69**		100.0

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

SUPERIOR MATERIALS

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"	99.6	100.0	100.0	99.8	0.2	0.2
3/4"	87.2	100.0	100.0	93.6	6.2	6.4
1/2"	53.6	98.8	100.0	76.7	16.9	23.3
3/8"	33.4	87.0	100.0	65.4	11.3	34.6
#4	6.4	24.1	96.2	43.8	21.6	56.2
#8	2.8	8.3	80.3	34.1	9.8	65.9
#16	2.5	5.0	63.4	26.9	7.2	73.1
#30	2.3	4.2	46.3	19.9	7.0	80.1
#50	2.2	3.8	22.9	10.6	9.4	89.4
#100	2.1	3.5	6.2	3.9	6.7	96.1
LBW	1.9	2.9	1.3	1.8	2.1	98.2

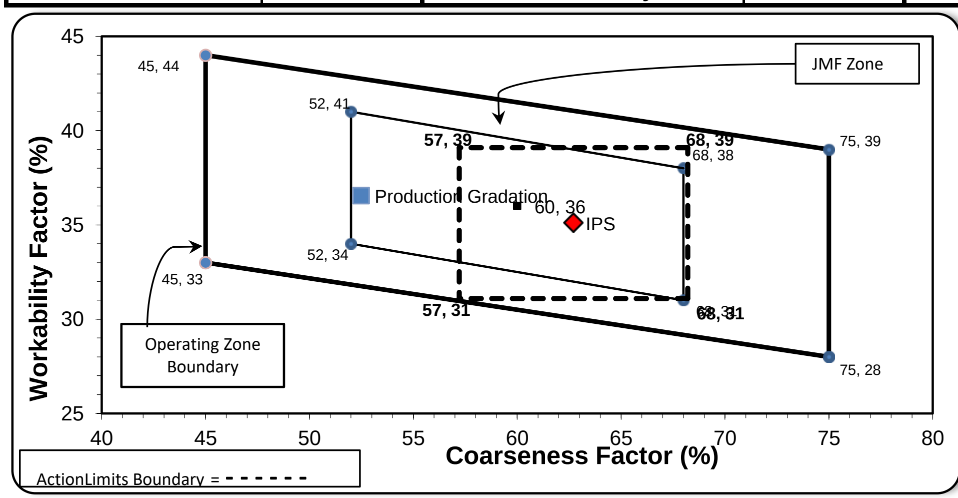
*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ◉ Batch Plant Gradations ○ Aggregate SupplierGradations

Coarseness Factor:	52	Workability Factor:	34	Adjusted WF
				36.6

Intial Production Sample (IPS)

Coarseness Factor:	**63**
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"	95.1	4.9	4.9
1/2"	74.6	20.5	25.4
3/8"	59.3	15.3	40.7
#4	42.1	17.2	57.9
#8	35.1	7.1	64.9
#16	29.2	5.9	70.8
#30	21.9	7.3	78.1
#50	9.6	12.4	90.4
#100	2.4	7.2	97.6
LBW	0.9	1.5	99.1

Approved By:

PREPARED BY:
SM, LLC Technical Service

SUPERIOR MATERIALS

Daily Summary Report

Date	Thursday, July 10, 2025		
Sample Id	-674910536	-674928075	-674959586
Plant	S02 Superior Hoover	S Superior Hoover	S02 Superior Hoover
Product	2NS GR	6AA LS	26A Mod LS
Specification	2NS GR Spec	6AA LS	26A Mod LS Spec
Sample Type	QA	QA	QA
2" (50mm)		100.0	100.0
1 1/2" (37.5mm)		100.0	100.0
1" (25mm)		99.6	100.0
3/4" (19mm)		87.2	100.0
1/2" (12.5mm)		53.6	98.8
3/8" (9.5mm)	100.0	33.4	87.0
#4 (4.75mm)	96.2	6.4	24.1
#8 (2.36mm)	80.3	2.8	8.3
#16 (1.18mm)	63.4	2.5	5.0
#30 (.6mm)	46.3	2.3	4.2
#50 (.3mm)	22.9	2.2	3.8
#100 (.15mm)	6.2	2.1	3.5
#200 (75µm)	1.5	1.97	3.1
Pan	0.0	0.00	0.0
FM	2.85		
Wash Loss (#200/75um)	1.3	1.9	2.9
Total Moisture	4.69	3.37	3.73