

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-101**

Sample Date: **5/15/23**

Dates Test Represents: **5/16/2023** through **5/22/2023**

Concrete Grade: **DM 4500HP**

Contractor: _____

MDOT No.: _____



Superior Materials, LLC
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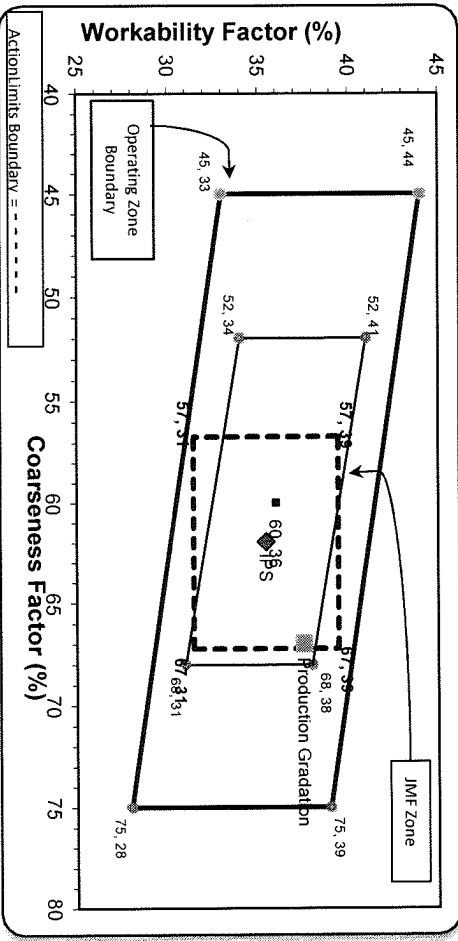
Aggr. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1450	8.87	2.62	50.0
26A	71-47	Presque Isle	300	1.83	2.62	10.3
2NS	75-051	Mid Michigan	1150	6.93	2.66	39.7
			Total Wt	2900		100.0

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"	94.8	100.0	100.0	97.4	2.6	2.6
3/4"	78.0	100.0	100.0	89.0	8.4	11.0
1/2"	33.5	96.8	100.0	66.4	22.6	33.6
3/8"	16.0	85.4	100.0	56.5	9.9	43.5
#4	3.9	19.0	97.6	42.6	13.9	57.4
#8	2.7	5.1	83.6	35.0	7.6	65.0
#16	2.5	3.3	69.5	29.2	5.9	70.8
#30	2.3	2.9	53.9	22.8	6.3	77.2
#50	2.1	2.6	28.8	12.7	10.1	87.3
#100	1.9	2.4	7.9	4.3	8.4	95.7
LBW	1.6	2.0	0.8	1.3	3.0	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 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **67** Workability Factor: **35** Adjusted WF: **37.5**



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"	70.5	24.5	29.5
3/8"	60.0	10.5	40.0
#4	44.4	15.6	55.6
#8	35.5	9.0	64.5
#16	28.5	7.0	71.5
#30	21.5	7.0	78.5
#50	10.2	11.3	89.8
#100	3.1	7.1	96.9
LBW	1.3	1.8	98.7

PREPARED BY: SM, LLC Technical Service

Approved By: _____



Basic Quality Statistical Summary Report

Plant S101-Superior Mount Clemens
 Product 1051-6AA LS
 Specification 6AA LS
 Period 05/14/2023 - 05/20/2023

Sieve/Test	Tests	Average	St Dev	Target	Specification
2" (50mm)	1	100.0			
1 1/2" (37.5mm)	1	100.0			100-100
1" (25mm)	1	94.8			95-100
3/4" (19mm)	1	78.0			
1/2" (12.5mm)	1	33.5			30-60
3/8" (9.5mm)	1	16.0			
#4 (4.75mm)	1	3.9			0-8
#8 (2.36mm)	1	2.7			
#16 (1.18mm)	1	2.5			
#30 (.6mm)	1	2.3			
#50 (.3mm)	1	2.1			
#100 (.15mm)	1	1.9			
#200 (75µm)	1	1.74			
Pan	1	0.00			
Wash Loss (#200/75um)	1	1.6			0-2
Total Moisture	1	1.52			



Basic Quality Statistical Summary Report

Plant S101-Superior Mount Clemens
 Product 1067-26A Mod LS
 Specification 26A Mod LS Spec
 Period 05/14/2023 - 05/20/2023

Sieve/Test	Tests	Average	St Dev	Target	Specification
2" (50mm)	1	100.0			
1 1/2" (37.5mm)	1	100.0			
1" (25mm)	1	100.0			
3/4" (19mm)	1	100.0			100-100
1/2" (12.5mm)	1	96.8			95-100
3/8" (9.5mm)	1	85.4			60-95
#4 (4.75mm)	1	19.0			5-30
#8 (2.36mm)	1	5.1			0-12
#16 (1.18mm)	1	3.3			
#30 (.6mm)	1	2.9			
#50 (.3mm)	1	2.6			
#100 (.15mm)	1	2.4			
#200 (75µm)	1	2.1			
Pan	1	0.0			
Wash Loss (#200/75um)	1	2.0			0-3
Total Moisture	1	1.96			



Basic Quality Statistical Summary Report

Plant S101-Superior Mount Clemens
 Product 1022-2NS GR
 Specification 2NS GR Spec
 Period 05/14/2023 - 05/20/2023

Sieve/Test	Tests	Average	St Dev	Target	Specification
3/8" (9.5mm)	1	100.0			100-100
#4 (4.75mm)	1	97.6			95-100
#8 (2.36mm)	1	83.6			65-95
#16 (1.18mm)	1	69.5			35-75
#30 (.6mm)	1	53.9		40-50	20-55
#50 (.3mm)	1	28.8			10-30
#100 (.15mm)	1	7.9			0-10
#200 (75µm)	1	1.1			
Pan	1	0.0			
FM	1	2.59		2.7-2.9	2.6-3
Wash Loss (#200/75µm)	1	0.8			0-3
Total Moisture	1	3.38			