

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-32**

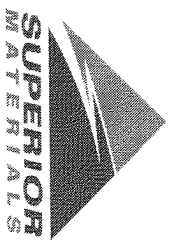
Sample Date: **10/3/22**

Dates Test Represents: **10/4/2022** through **10/10/2022**

Concrete Grade: **DM, 4500HP**

Contractor: _____

MDOT No.: _____



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

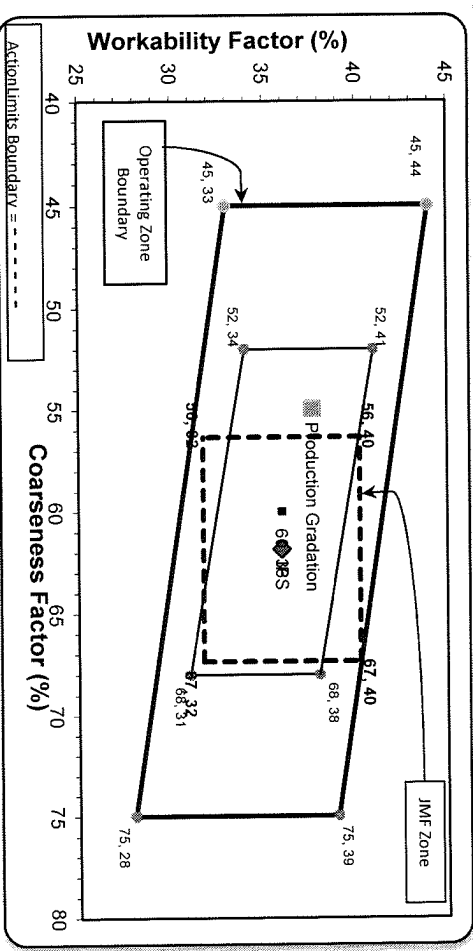
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution	
6AA	71-47	Presque Isle	1355	8.29	2.62	46.6	
26A	71-47	Presque Isle	400	2.45	2.62	13.8	
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6	
Total Wt						2905	17.69
							100.0

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"	98.4	100.0	100.0	99.3	0.7	0.7
3/4"	83.3	100.0	100.0	92.2	7.8	7.8
1/2"	47.7	95.6	100.0	75.0	17.2	25.0
3/8"	27.8	85.8	100.0	64.4	10.6	35.6
#4	6.1	23.5	95.6	43.9	20.4	56.1
#8	2.5	7.7	83.2	35.2	8.8	64.8
#16	2.2	3.8	68.8	28.8	6.4	71.2
#30	2.1	2.9	50.7	21.4	7.3	78.6
#50	2.0	2.7	24.9	11.2	10.3	88.8
#100	1.9	2.5	7.2	4.1	7.1	95.9
LBW	1.5	2.2	1.1	1.4	2.6	98.6

*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. 1.5") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **55** Workability Factor: **35** Adjusted WF: **37.7**



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

PREPARED BY:
SM, LLC Technical Service

Approved By: _____

Plant 958-JMT
 Product 1022-2NS GR - Smelter Bay
 Period: 10/02/2022 - 10/08/2022

Name/Title Doug Storey / QC Technician
 Report Date 10/07/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	95.6	%	95-100
	#8 (2.36mm)	83.2	%	65-95
	#16 (1.18mm)	68.8	%	35-75
	#30 (.6mm)	50.7	%	20-55
	#50 (.3mm)	24.9	%	10-30
	#100 (.15mm)	7.2	%	0-10
	#200 (75µm)	1.7	%	
	FM	2.70		2.6-3
	Wash Loss (#200/75um)	1.1	%	0-3
	Total Moisture	5.0	%	

Plant 958-JMT
 Product 1067-26A Mod LS
 Period: 10/02/2022 - 10/08/2022

Name/Title Doug Storey / QC Technician
 Report Date 10/07/2022

Procedure	Sieve/Test	Result	Unit	26A Mod LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	95.6	%	95-100
	3/8" (9.5mm)	85.8	%	60-95
	#4 (4.75mm)	23.5	%	5-30
	#8 (2.36mm)	7.7	%	0-12
	#16 (1.18mm)	3.8	%	
	#30 (.6mm)	2.9	%	
	#50 (.3mm)	2.7	%	
	#100 (.15mm)	2.5	%	
	#200 (75µm)	2.2	%	
	Wash Loss (#200/75um)	2.2	%	0-3
	Total Moisture	2.6	%	

Edw. C. Levy Co.

JMT
 8911 W. Jefferson
 Detroit, 48209
 (313) 429-2429

Plant 958-JMT

Product 1054-6AA LS PI

Period: 10/02/2022 - 10/08/2022

Name/Title Doug Storey / QC Technician

Report Date 10/07/2022

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.4	%	95-100
	3/4" (19mm)	83.3	%	
	1/2" (12.5mm)	47.7	%	30-60
	3/8" (9.5mm)	27.8	%	
	#4 (4.75mm)	6.1	%	0-8
	#8 (2.36mm)	2.5	%	
	#16 (1.18mm)	2.2	%	
	#30 (.6mm)	2.1	%	
	#50 (.3mm)	2.0	%	
	#100 (.15mm)	1.9	%	
	#200 (75µm)	1.7	%	
	Wash Loss (#200/75µm)	1.5	%	0-2
	Total Moisture	3.1	%	