

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-32**

Sample Date: **6/6/22**

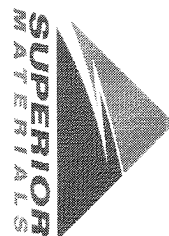
Dates Test Represents: **6/7/2022**

through **6/13/2022**

Concrete Grade: **DM 4500HP**

Contractor: _____

MDOT No.: _____



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

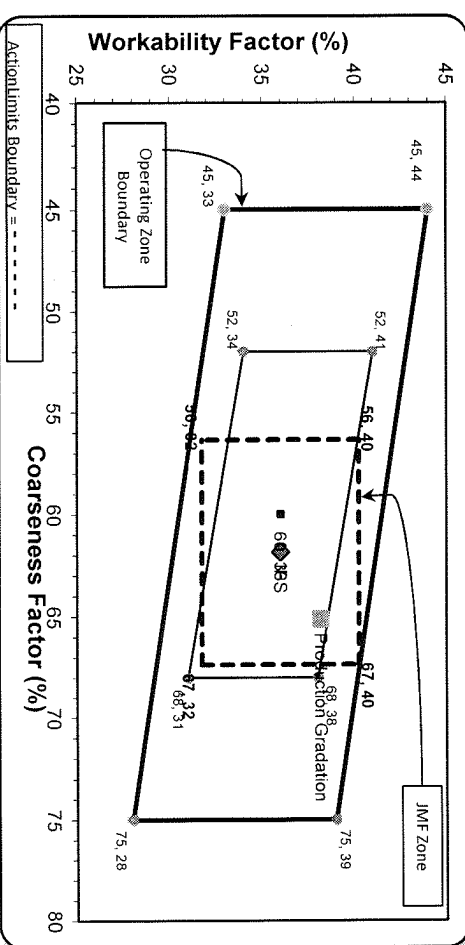
Verify this number is 100%

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution	
6AA	71-47	Presque Isle	1305	7.98	2.62	44.9	
26A	71-47	Presque Isle	450	2.75	2.62	15.5	
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6	
Total Wt						2905	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"	96.3	100.0	100.0	98.3	1.7	1.7
3/4"	74.3	100.0	100.0	88.5	9.9	11.5
1/2"	30.5	95.3	100.0	68.1	20.4	31.9
3/8"	12.6	83.0	100.0	58.1	9.9	41.9
#4	1.9	28.3	97.0	43.6	14.5	56.4
#8	1.4	8.8	85.1	35.7	8.0	64.3
#16	1.3	4.3	70.6	29.2	6.5	70.8
#30	1.2	3.2	51.0	21.2	8.0	78.8
#50	1.2	2.8	24.8	10.8	10.4	89.2
#100	1.1	2.5	7.3	3.8	7.0	96.2
LBW	0.8	2.0	1.4	1.2	2.5	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 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	Adjusted WF
Coarseness Factor: 65	Workability Factor: 36		38.2



Sieve	Coarseness Factor:	Workability Factor:	Adjusted WF
2"	62	36	38.2
1.5"	62	36	38.2
1"	62	36	38.2
3/4"	62	36	38.2
1/2"	62	36	38.2
3/8"	62	36	38.2
#4	62	36	38.2
#8	62	36	38.2
#16	62	36	38.2
#30	62	36	38.2
#50	62	36	38.2
#100	62	36	38.2
LBW	62	36	38.2

PREPARED BY:
SM, LLC Technical Service

Approved By: _____

Plant 958-JMT
 Product 1022-2NS GR - Smelter Bay
 Period: 06/05/2022 - 06/11/2022

Name/Title Doug Storey / QC Technician
 Report Date 06/10/2022

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	97.0	%	95-100
	#8 (2.36mm)	85.1	%	65-95
	#16 (1.18mm)	70.6	%	35-75
	#30 (.6mm)	51.0	%	20-55
	#50 (.3mm)	24.8	%	10-30
	#100 (.15mm)	7.3	%	0-10
	#200 (75µm)	2.0	%	
	FM	2.64		2.6-3
	Wash Loss (#200/75um)	1.4	%	0-3
	Total Moisture	6.8	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 06/05/2022 - 06/11/2022

Report Date 06/10/2022

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)	95.3	%	95-100
	3/8" (9.5mm)	83.0	%	60-95
	#4 (4.75mm)	28.3	%	5-30
	#8 (2.36mm)	8.8	%	0-12
	#16 (1.18mm)	4.3	%	
	#30 (.6mm)	3.2	%	
	#50 (.3mm)	2.8	%	
	#100 (.15mm)	2.5	%	
	#200 (75µm)	2.3	%	
	Wash Loss (#200/75um)	2.0	%	0-3
	Total Moisture	4.2	%	

Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 06/05/2022 - 06/11/2022

Report Date 06/10/2022

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	96.3	%	95-100
	3/4" (19mm)	74.3	%	
	1/2" (12.5mm)	30.5	%	30-60
	3/8" (9.5mm)	12.6	%	
	#4 (4.75mm)	1.9	%	0-8
	#8 (2.36mm)	1.4	%	
	#16 (1.18mm)	1.3	%	
	#30 (.6mm)	1.2	%	
	#50 (.3mm)	1.2	%	
	#100 (.15mm)	1.1	%	
	#200 (75µm)	1.0	%	
	Wash Loss (#200/75um)	0.8	%	0-2
	Total Moisture	2.8	%	