

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-32**

Contractor: _____

Sample Date: 10/25/21

Concrete Grade: **DM**

Dates Test Represents: 10/26/2021 through 11/1/2021

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1455	8.90	2.62	50.1
26A	71-47	Presque Isle	300	1.83	2.62	10.3
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
Total Wt			2905	17.69		100.0

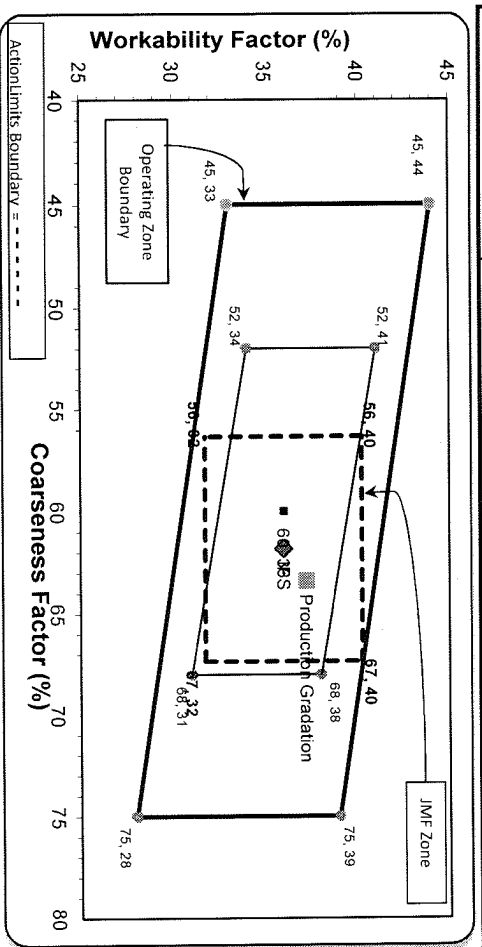
Verify this number is 100%

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"	74.1	100.0	100.0	87.0	12.3	13.0
1/2"	35.1	95.3	100.0	67.0	20.0	33.0
3/8"	20.7	83.9	100.0	58.6	8.4	41.4
#4	3.4	18.2	96.3	41.7	16.9	58.3
#8	1.8	4.7	84.2	34.7	7.0	65.3
#16	1.5	2.4	68.2	28.0	6.7	72.0
#30	1.4	1.9	49.2	20.4	7.6	79.6
#50	1.4	1.7	23.8	10.3	10.1	89.7
#100	1.3	1.6	7.4	3.7	6.6	96.3
LBW	1.0	1.4	1.6	1.3	2.5	98.7

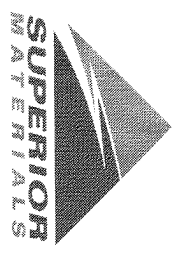
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max. nom. max. #100 and #200 sieves.
 **% Retained must be at least 4% for each sieve except max. nom. max. #100 and #200 sieves.
 ***% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. 1.5") aggregate is used.

Production Gradation	<input checked="" type="radio"/> Batch Plant Gradations	<input type="radio"/> Aggregate Supplier Gradations
Coarseness Factor:	63	Workability Factor: 35
Adjusted WF		37.2

Initial 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



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

PREPARED BY:
 SM, LLC Technical Service

Approved By: _____

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Name/Title Doug Storey / QC Technician

Period: 10/24/2021 - 10/30/2021

Report Date 10/30/2021

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.3	%	95-100
	#8 (2.36mm)	84.2	%	65-95
	#16 (1.18mm)	68.2	%	35-75
	#30 (.6mm)	49.2	%	20-55
	#50 (.3mm)	23.8	%	10-30
	#100 (.15mm)	7.4	%	0-10
	#200 (75µm)	2.2	%	
	FM	2.71		2.6-3
	Wash Loss (#200/75um)	1.6	%	0-3
	Total Moisture	4.4	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 10/24/2021 - 10/30/2021

Report Date 10/30/2021

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)	83.9	%	60-95
	#4 (4.75mm)	18.2	%	5-30
	#8 (2.36mm)	4.7	%	0-12
	#16 (1.18mm)	2.4	%	
	#30 (.6mm)	1.9	%	
	#50 (.3mm)	1.7	%	
	#100 (.15mm)	1.6	%	
	#200 (75µm)	1.5	%	
	Wash Loss (#200/75um)	1.4	%	0-3
	Total Moisture	3.8	%	

Plant 958-JMT

Product 1054-6AA LS PI

Period: 10/24/2021 - 10/30/2021

Name/Title Doug Storey / QC Technician

Report Date 10/30/2021

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.7	%	95-100
	3/4" (19mm)	74.1	%	
	1/2" (12.5mm)	35.1	%	30-60
	3/8" (9.5mm)	20.7	%	
	#4 (4.75mm)	3.4	%	0-8
	#8 (2.36mm)	1.8	%	
	#16 (1.18mm)	1.5	%	
	#30 (.6mm)	1.4	%	
	#50 (.3mm)	1.4	%	
	#100 (.15mm)	1.3	%	
	#200 (75µm)	1.1	%	
	Wash Loss (#200/75um)	1.0	%	0-2
	Total Moisture	3.0	%	