Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-32

Sample Date: 11/23/20

Concrete Grade: **S2M**

Contractor: _____

Dates Test Represents: 11/24/2020 through 11/30/2020

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1670	10.21	2.62	54.8
26A	71-47	Presque Isle	150	0.92	2.62	4.9
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
		Total Wt	**3050**	**18.57**		100.0

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

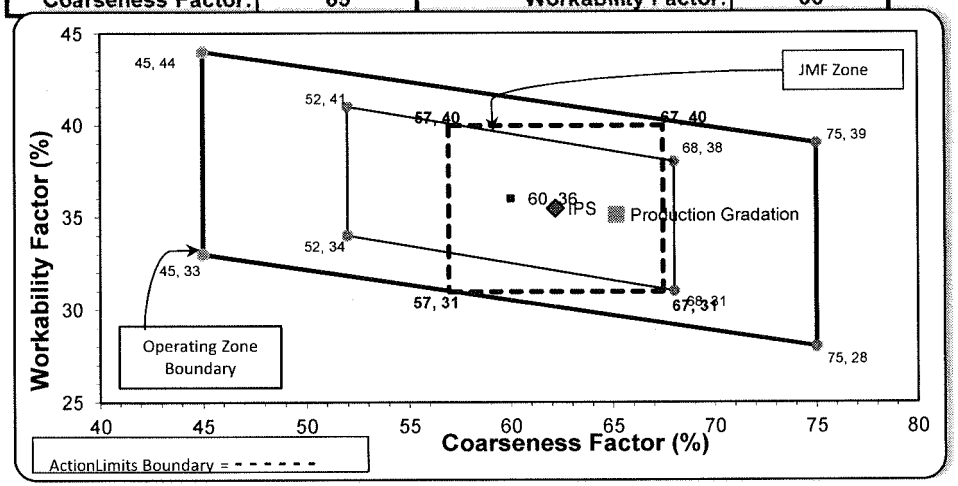
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	97.4	100.0	100.0	98.6	1.4	1.4
3/4"	73.2	100.0	100.0	85.3	13.3	14.7
1/2"	40.6	100.0	100.0	67.5	17.8	32.5
3/8"	23.7	89.7	100.0	57.7	9.8	42.3
#4	3.5	22.0	95.6	41.6	16.2	58.4
#8	2.2	6.6	83.3	35.1	6.4	64.9
#16	2.0	3.6	67.8	28.6	6.5	71.4
#30	2.0	2.9	47.3	20.3	8.3	79.7
#50	1.9	2.9	27.0	12.1	8.2	87.9
#100	1.8	2.9	7.2	4.0	8.0	96.0
LBW	1.3	1.8	1.3	1.3	2.7	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.

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

Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

Coarseness Factor:	65	Workability Factor:	35



Intial Production Sample (IPS)

Coarseness Factor:	62
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"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

PREPARED BY:
SM, LLC Technical Service

Approved By:

Edw. C. Levy Co.

Plant 958-JMT

Product 1054-6AA LS PI

Period: 11/22/2020 - 11/28/2020

Name/Title Doug Storey / QC Technician

Report Date 11/26/2020

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	97.4	%	95-100
	3/4" (19mm)	73.2	%	
	1/2" (12.5mm)	40.6	%	30-60
	3/8" (9.5mm)	23.7	%	
	#4 (4.75mm)	3.5	%	0-8
	#8 (2.36mm)	2.2	%	
	#16 (1.18mm)	2.0	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.9	%	
	#100 (.15mm)	1.8	%	
	#200 (75µm)	1.6	%	
	Wash Loss (#200/75um)	1.3	%	0-2
	Total Moisture	3.7	%	

Edw. C. Levy Co.

Plant 958-JMT

Product 1067-26A Mod LS

Period: 11/22/2020 - 11/28/2020

Name/Title Doug Storey / QC Technician

Report Date 11/26/2020

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)	100.0	%	95-100
	3/8" (9.5mm)	89.7	%	60-95
	#4 (4.75mm)	22.0	%	5-30
	#8 (2.36mm)	6.6	%	0-12
	#16 (1.18mm)	3.6	%	
	#30 (.6mm)	2.9	%	
	#50 (.3mm)	2.9	%	
	#100 (.15mm)	2.9	%	
	#200 (75µm)	2.2	%	
	Wash Loss (#200/75um)	1.8	%	0-3
	Total Moisture	5.3	%	

Edw. C. Levy Co.

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Period: 11/22/2020 - 11/28/2020

Name/Title Doug Storey / QC Technician

Report Date 11/26/2020

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)	83.3	%	65-95
	#16 (1.18mm)	67.8	%	35-75
	#30 (.6mm)	47.3	%	20-55
	#50 (.3mm)	27.0	%	10-30
	#100 (.15mm)	7.2	%	0-10
	#200 (75µm)	1.7	%	
	FM	2.72		2.6-3
	Wash Loss (#200/75um)	1.3	%	0-3
	Total Moisture	6.0	%	