

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-36

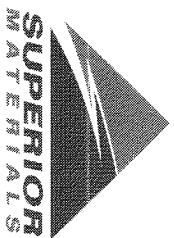
Sample Date: 10/26/20

Dates Test Represents: 10/27/2020 through 11/2/2020

Concrete Grade: S2M

Contractor: _____

MDOT No.: _____



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

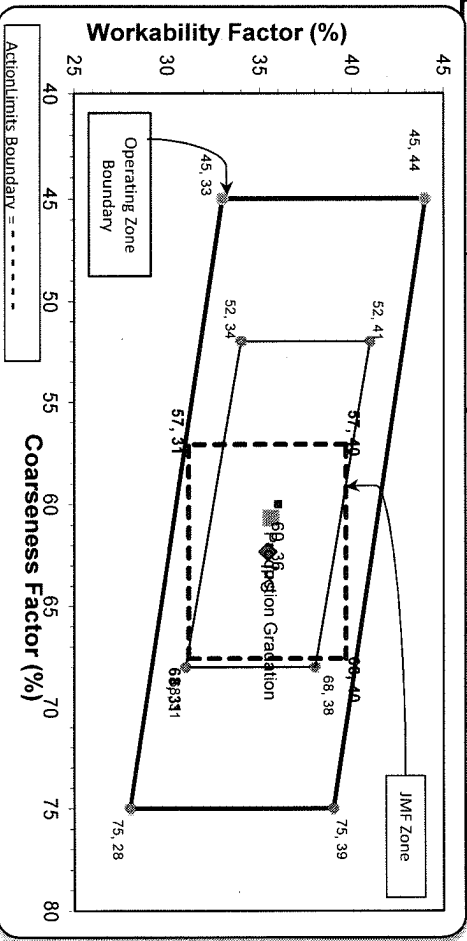
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1700	10.40	2.62	55.7
26A	71-47	Presque Isle	150	0.92	2.62	4.9
2NS	63-92	Grange Hill	1200	7.26	2.65	39.3
			Total Wt	3050	18.57	100.0

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"	98.1	100.0	100.0	98.9	1.1	1.1
3/4"	81.6	100.0	100.0	89.7	9.2	10.3
1/2"	49.9	97.3	100.0	71.9	17.8	28.1
3/8"	31.0	87.7	100.0	60.9	11.0	39.1
#4	5.6	18.7	97.6	42.4	18.5	57.6
#8	2.6	4.8	86.2	35.6	6.8	64.4
#16	2.2	2.4	73.0	30.1	5.5	69.9
#30	2.0	2.0	48.8	20.4	9.7	79.6
#50	1.9	1.9	17.4	8.0	12.4	92.0
#100	1.9	1.8	5.8	3.4	4.6	96.6
LBW	1.6	1.7	1.9	1.7	1.7	98.3

*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: 61 Workability Factor: 36



Initial Production Sample (IPS)

Sieve	Coarseness Factor:	Workability Factor:	% Retained	Cumulative % Retained
2"	62	35	0.0	0.0
1.5"			0.0	0.0
1"			0.9	0.9
3/4"			8.6	9.5
1/2"			20.7	30.2
3/8"			10.0	40.2
#4			17.6	57.8
#8			6.7	64.6
#16			6.7	71.2
#30			7.4	78.6
#50			12.6	91.2
#100			7.0	98.2
LBW			1.0	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By: _____



2470 Auburn Road
Auburn Hills, MI 48432

Plant S36-Superior Auburn Hills

Product 1051-6AA LS

Name/Title Doug Storey / QC Technician

Period: 10/25/2020 - 10/31/2020

Report Date 10/30/2020

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.1	%	95-100
	3/4" (19mm)	81.6	%	
	1/2" (12.5mm)	49.9	%	30-60
	3/8" (9.5mm)	31.0	%	
	#4 (4.75mm)	5.6	%	0-8
	#8 (2.36mm)	2.6	%	
	#16 (1.18mm)	2.2	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.9	%	
	#100 (.15mm)	1.9	%	
	#200 (75µm)	1.7	%	
	Wash Loss (#200/75um)	1.6	%	0-2
	Total Moisture	1.25	%	
AASHTO T11	-#200 (75um)	1.73	%	



2470 Auburn Road
Auburn Hills, MI 48432

Plant S36-Superior Auburn Hills

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 10/25/2020 - 10/31/2020

Report Date 10/30/2020

Procedure	Sieve/Test	Result	Unit	26A 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)	97.3	%	95-100
	3/8" (9.5mm)	87.7	%	60-95
	#4 (4.75mm)	18.7	%	5-30
	#8 (2.36mm)	4.8	%	0-12
	#16 (1.18mm)	2.4	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.9	%	
	#100 (.15mm)	1.8	%	
	#200 (75µm)	1.7	%	
	Wash Loss (#200/75um)	1.7	%	0-3
	Total Moisture	1.37	%	



2470 Auburn Road
Auburn Hills, MI 48432

Plant S36-Superior Auburn Hills

Product 1022-2NS GR

Name/Title Doug Storey / QC Technician

Period: 10/25/2020 - 10/31/2020

Report Date 10/30/2020

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	97.6	%	95-100
	#8 (2.36mm)	86.2	%	65-95
	#16 (1.18mm)	73.0	%	35-75
	#30 (.6mm)	48.8	%	20-55
	#50 (.3mm)	17.4	%	10-30
	#100 (.15mm)	5.8	%	0-10
	#200 (75µm)	2.0	%	
	FM	2.71		2.6-3
	Wash Loss (#200/75um)	1.9	%	0-3
	Total Moisture	0.84	%	