

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-20

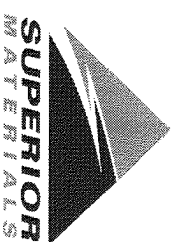
Sample Date: 6/14/21

Dates Test Represents: 6/15/2021 through 6/21/2021

Concrete Grade: DM

Contractor: _____

MDOT No.: _____



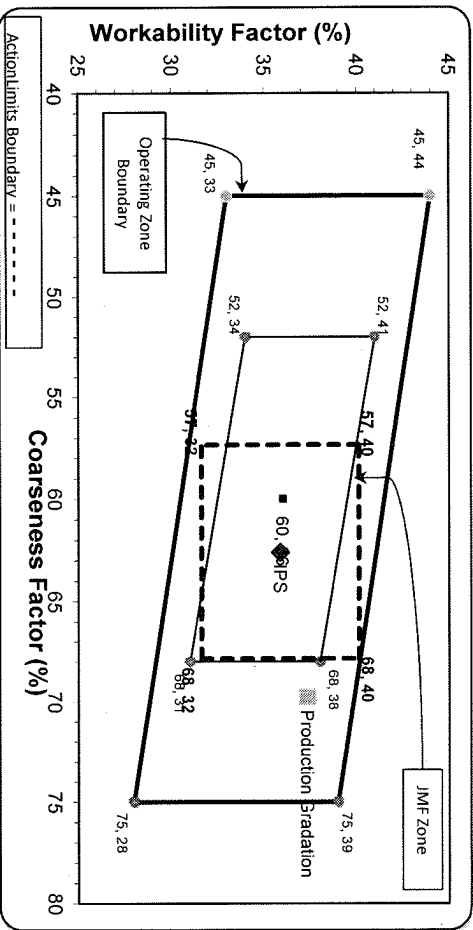
Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

Aggr. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1605	9.82	2.62	55.2
26A	71-47	Presque Isle	200	1.22	2.62	6.9
2NS	63-92	Grange Hall	1100	6.65	2.65	37.9
		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"	96.8	100.0	100.0	98.2	1.8	1.8
3/4"	78.2	100.0	100.0	88.0	10.3	12.0
1/2"	37.6	98.7	100.0	65.4	22.5	34.6
3/8"	18.4	94.5	100.0	54.5	10.9	45.5
#4	4.0	29.1	98.2	41.4	13.1	58.6
#8	2.6	9.1	86.5	34.8	6.6	65.2
#16	2.2	4.8	72.0	28.8	6.0	71.2
#30	2.1	3.6	53.6	21.7	7.1	78.3
#50	2.0	3.2	25.7	11.1	10.6	88.9
#100	1.9	2.8	4.2	2.8	8.2	97.2
LBW	1.6	2.4	0.5	1.2	1.6	98.8

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: 70 Workability Factor: 35 Adjusted WF: 37.3



Sieve	% 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"	89.2	10.8	10.8
1/2"	68.4	20.8	31.6
3/8"	59.9	8.6	40.1
#4	43.0	16.9	57.0
#8	35.9	7.1	64.1
#16	29.0	6.8	71.0
#30	21.3	7.7	78.7
#50	9.9	11.4	90.1
#100	2.4	7.5	97.6
LBW	1.2	1.2	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.

PREPARED BY:
SM, LLC Technical Service

Approved By: _____



Plant S20-Superior Flint

Product 1022-2NS GR

Name/Title Doug Storey / QC Technician

Period: 06/13/2021 - 06/19/2021

Report Date 06/19/2021

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	98.2	%	95-100
	#8 (2.36mm)	86.5	%	65-95
	#16 (1.18mm)	72.0	%	35-75
	#30 (.6mm)	53.6	%	20-55
	#50 (.3mm)	25.7	%	10-30
	#100 (.15mm)	4.2	%	0-10
	#200 (75µm)	0.7	%	
	FM	2.60		2.6-3
	Wash Loss (#200/75um)	0.5	%	0-3
	Total Moisture	3.15	%	



Plant S20-Superior Flint

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 06/13/2021 - 06/19/2021

Report Date 06/19/2021

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)	98.7	%	95-100
	3/8" (9.5mm)	94.5	%	60-95
	#4 (4.75mm)	29.1	%	5-30
	#8 (2.36mm)	9.1	%	0-12
	#16 (1.18mm)	4.8	%	
	#30 (.6mm)	3.6	%	
	#50 (.3mm)	3.2	%	
	#100 (.15mm)	2.8	%	
	#200 (75µm)	2.5	%	
	Wash Loss (#200/75um)	2.4	%	0-3
	Total Moisture	2.40	%	



Plant S20-Superior Flint

Product 1051-6AA LS

Name/Title Doug Storey / QC Technician

Period: 06/13/2021 - 06/19/2021

Report Date 06/19/2021

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	96.8	%	95-100
	3/4" (19mm)	78.2	%	
	1/2" (12.5mm)	37.6	%	30-60
	3/8" (9.5mm)	18.4	%	
	#4 (4.75mm)	4.0	%	0-8
	#8 (2.36mm)	2.6	%	
	#16 (1.18mm)	2.2	%	
	#30 (.6mm)	2.1	%	
	#50 (.3mm)	2.0	%	
	#100 (.15mm)	1.9	%	
	#200 (75µm)	1.64	%	
	Wash Loss (#200/75um)	1.6	%	0-2
	Total Moisture	2.44	%	