

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

Sample Date: **2/26/24**

Dates Test Represents: **2/27/2024** through **3/4/2024**

Concrete Grade: **S2M, 3500HP**

Contractor: _____
MIDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	Contribution %
6AA	58-003	Stoneco	1550	9.23	2.69	50.0
26A	58-003	Stoneco	350	2.09	2.69	11.3
2NS	63-114	Highland	1200	7.26	2.65	38.7
Total Wt			3100	18.58		100.0

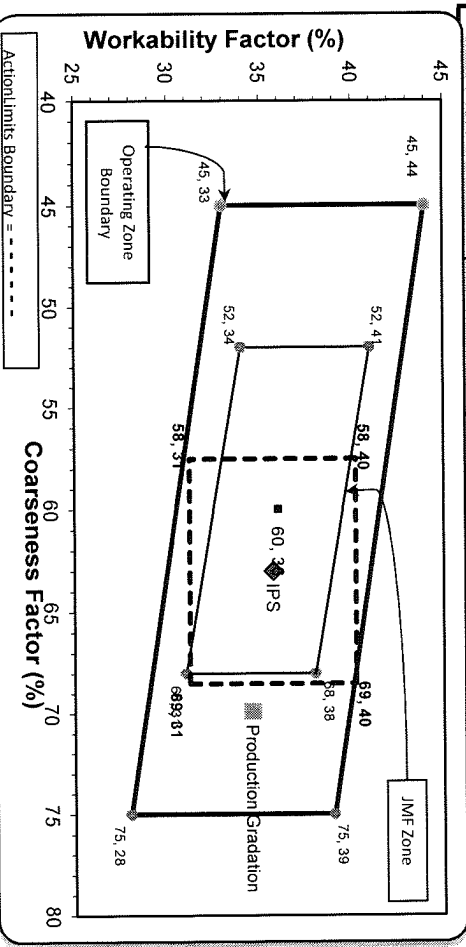
Verify this number is 100%

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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	74.5	100.0	100.0	87.3	12.8	12.8
1/2"	29.9	97.6	100.0	64.7	22.6	35.3
3/8"	12.0	84.8	100.0	54.3	10.4	45.7
#4	2.5	17.3	99.1	41.6	12.7	58.4
#8	1.8	6.9	85.0	34.6	7.0	65.4
#16	1.6	4.7	67.4	27.4	7.2	72.6
#30	1.6	4.0	49.5	20.4	7.0	79.6
#50	1.5	3.4	20.7	9.1	11.3	90.9
#100	1.4	3.1	4.2	2.7	6.5	97.3
LBW	1.3	2.8	0.8	1.3	1.4	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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **70** Workability Factor: **35**



Initial Production Sample (IPS)

Sieve	Coarseness Factor:	Workability Factor:	% Passing	% Retained	Cumulative % Retained
2"	63	36	100.0	0.0	0.0
1.5"			100.0	0.0	0.0
1"			99.2	0.8	0.8
3/4"			90.9	8.3	9.1
1/2"			71.3	19.6	28.7
3/8"			59.5	11.8	40.5
#4			43.8	15.7	56.2
#8			35.7	8.1	64.3
#16			27.0	8.7	73.0
#30			18.6	8.4	81.4
#50			6.8	11.8	93.2
#100			1.4	5.4	98.6
LBW			0.6	0.8	99.4

PREPARED BY:
SM, LLC Technical Service

Approved By: _____



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



Plant S102-Superior Novi

Product 1051-6AA LS

Name/Title Doug Storey / QC Technician

Period: 02/25/2024 - 03/02/2024

Report Date 03/01/2024

Procedure	Sieve/Test	Result	Unit
		100.0	6AA LS

	2" (50mm)	100.0	%
	1 1/2" (37.5mm)	100.0	%
100-100	1" (25mm)	100.0	%
95-100	3/4" (19mm)	74.5	%
30-60	1/2" (12.5mm)	29.9	%
	3/8" (9.5mm)	12.0	%
0-8	#4 (4.75mm)	2.5	%
	#8 (2.36mm)	1.8	%
	#16 (1.18mm)	1.6	%
	#30 (.6mm)	1.6	%
	#50 (.3mm)	1.5	%
	#100 (.15mm)	1.4	%
	#200 (.75µm)	1.38	%
	Wash Loss (#200/75µm)	1.3	%
0-2	Total Moisture	2.06	%



Plant S102-Superior Novi

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 02/25/2024 - 03/02/2024

Report Date 03/01/2024

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	%
	1/2" (12.5mm)	97.6	%
	3/8" (9.5mm)	84.8	%
	#4 (4.75mm)	17.3	%
	#8 (2.36mm)	6.9	%
	#16 (1.18mm)	4.7	%
	#30 (.6mm)	4.0	%
	#50 (.3mm)	3.4	%
	#100 (.15mm)	3.1	%
	#200 (.75µm)	3.0	%
	Wash Loss (#200/75µm)	2.8	%
	Total Moisture	3.18	%
			0-3



Plant S102-Superior Novi

Product 1022-ZNS GR

Name/Title Doug Storey / QC Technician

Period: 02/25/2024 - 03/02/2024

Report Date 03/01/2024

Procedure	Sieve/Test	Result	Unit	ZNS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	99.1	%	95-100
	#8 (2.36mm)	85.0	%	65-95
	#16 (1.18mm)	67.4	%	35-75
	#30 (.6mm)	49.5	%	20-55
	#50 (.3mm)	20.7	%	10-30
	#100 (.15mm)	4.2	%	0-10
	#200 (.75µm)	1.1	%	
	FM	2.74		2.6-3
	Wash Loss (#200/75µm)	0.8	%	0-3
	Total Moisture	2.93	%	