

Aggregate Optimization Chart

PLANT #: **P-103**

Sample Date: 3/18/24

Concrete Grade: **P1M, 3500HP**

Dates Test Represents: 3/19/2024 through 3/25/2024

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1370	8.16	2.69	43.9
IA	58-003	Stoneco	550	3.28	2.69	17.6
2NS	63-114	Highland	1200	7.26	2.65	38.5
Total Wt			3120	18.70		100.0

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



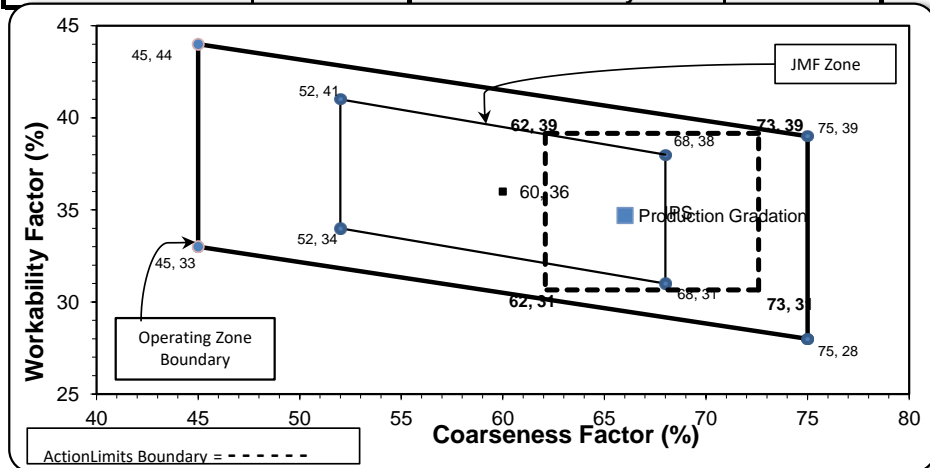
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

Sieve	CA	IA	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"	63.1	100.0	100.0	83.8	16.2	16.2
3/4"	36.3	100.0	100.0	72.0	11.8	28.0
1/2"	17.0	93.2	100.0	62.4	9.7	37.6
3/8"	10.8	77.6	100.0	56.9	5.5	43.1
#4	3.3	17.3	99.2	42.7	14.2	57.3
#8	2.2	5.0	85.4	34.7	8.0	65.3
#16	2.0	3.2	67.6	27.4	7.3	72.6
#30	1.8	2.3	48.4	19.8	7.6	80.2
#50	1.7	2.0	21.0	9.2	10.6	90.8
#100	1.6	1.8	4.1	2.6	6.6	97.4
LBW	1.4	1.6	0.8	1.2	1.4	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.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **66** **Workability Factor:** **35**



Initial Production Sample (IPS)

Coarseness Factor: 67		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"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	0.8	98.6

PREPARED BY:
 SM, LLC Technical Service

Approved BY: