

# Aggregate Optimization Chart

MIX ID'S: DDD0K7E7 and DDD0K7E9

Production Gradation Report

**PLANT #:** **P-103**

Sample Date: 3/13/17

Concrete Grade: DM

Contractor: \_\_\_\_\_

Dates Test Represents: 3/13/2017 to 3/19/2017

MDOT No.: \_\_\_\_\_

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1470	8.76	2.69	49.2
26A	58-003	Stoneco	300	1.79	2.69	10.0
2NS	81-93	Burmeister	1220	7.41	2.64	40.8
<b>Total Wt</b>			<b>2990</b>	<b>17.95</b>		<b>100.0</b>

<----- 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"	82.7	100.0	100.0	91.5	8.5	8.5
1/2"	42.9	99.6	100.0	71.9	19.6	28.1
3/8"	24.2	87.1	100.0	61.4	10.4	38.6
#4	3.4	16.3	99.0	43.7	17.7	56.3
#8	2.3	3.4	85.0	36.2	7.5	63.8
#16	2.3	1.6	68.0	29.0	7.1	71.0
#30	2.2	1.2	47.8	20.7	8.3	79.3
#50	2.0	1.1	17.4	8.2	12.5	91.8
#100	1.9	1.0	2.8	2.2	6.0	97.8
LBW	1.7	0.9	0.8	1.3	0.9	98.7

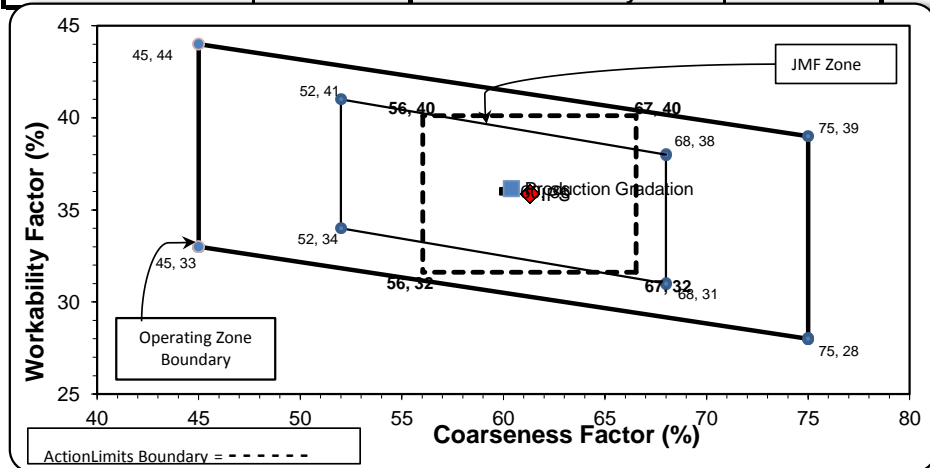


**Superior Materials, LLC**  
 30701 W. 10 Mile Rd.  
 Suite 500  
 Farmington Hills, MI 48336

\*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: **60**      Workability Factor: **36**



Initial Production Sample (IPS)

Coarseness Factor: <b>61</b>		Workability Factor: <b>36</b>	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:  
 SM, LLC Technical Service

Approved BY:

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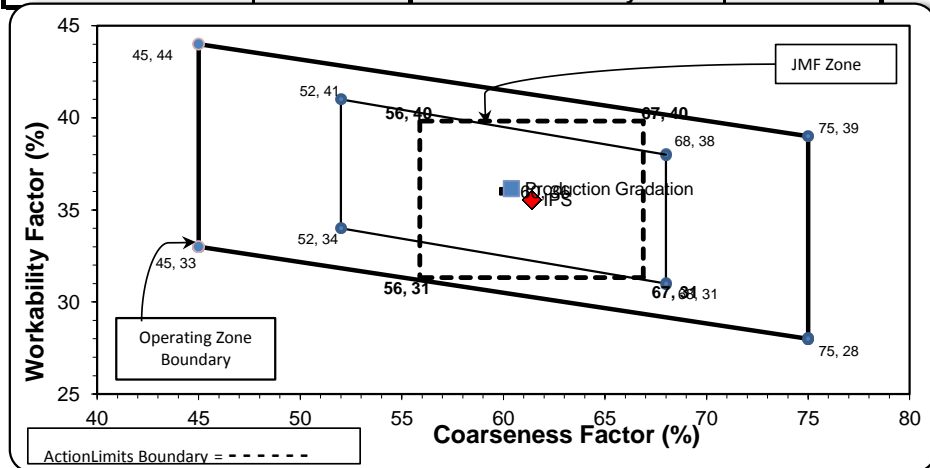


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