

# Aggregate Optimization Chart

MIX ID'S: DDD0K7E7 and DDD0K7E9

Production Gradation Report

**PLANT #:** **P-38**

Sample Date: 12/12/16

Concrete Grade: **DM**

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

Dates Test Represents: 12/12/2016 to 12/18/2016

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

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1350	8.04	2.69	45.2
26A	58-003	Stoneco	420	2.50	2.69	14.0
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"	83.8	100.0	100.0	92.7	7.3	7.3
1/2"	41.9	99.2	100.0	73.7	19.0	26.3
3/8"	16.0	89.4	100.0	60.6	13.1	39.4
#4	2.4	15.1	99.3	43.7	16.9	56.3
#8	1.2	3.5	87.6	36.8	6.9	63.2
#16	1.1	1.5	73.3	30.6	6.2	69.4
#30	0.9	1.1	54.5	22.8	7.8	77.2
#50	0.6	1.0	23.4	10.0	12.8	90.0
#100	0.5	1.0	4.3	2.1	7.8	97.9
LBW	0.5	0.7	1.4	0.9	1.2	99.1

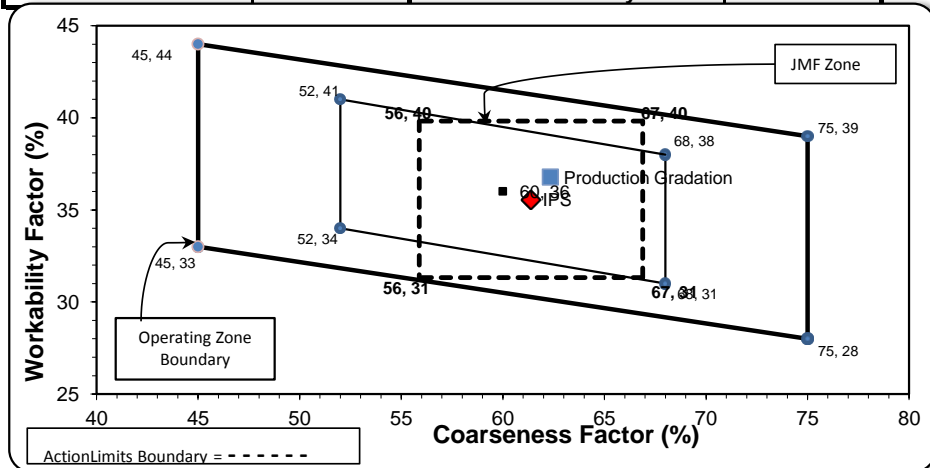


**Superior Materials, LLC**  
 30701 W. 10 Mile Rd.  
 Suite 500  
 Farmington Hills, MI 48336

\*Maximum % Retained must be above the 3/8" sieve.  
 \*Any two adjacent sieves must equal 13% except max., nom. max., #100 and #200 sieves.  
 \*% Retained must be at least 5% 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:** 62      **Workability Factor:** 37



Initial Production Sample (IPS)

**Coarseness Factor:** 61  
**Workability Factor:** 36

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"	89.1	10.2	10.9
1/2"	70.5	18.6	29.5
3/8"	60.5	10.0	39.5
#4	44.1	16.4	55.9
#8	35.6	8.5	64.4
#16	27.7	7.9	72.3
#30	20.6	7.1	79.4
#50	8.7	11.8	91.3
#100	1.6	7.1	98.4
LBW	1.1	0.6	98.9

PREPARED BY:  
 SM, LLC Technical Service

Approved By: