

Aggregate Optimization Chart

MIX ID'S: DDS257E7 and DDS257E8

Production Gradation Report

PLANT #: **P-103**

Sample Date: 3/27/17

Concrete Grade: **S2M**

Contractor: _____

Dates Test Represents: 3/27/2017 to 4/2/2017

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	49.1
26A	58-003	Stoneco	315	1.88	2.69	10.0
2NS	81-93	Burmeister	1290	7.83	2.64	40.9
Total Wt			3155	18.94		100.0

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



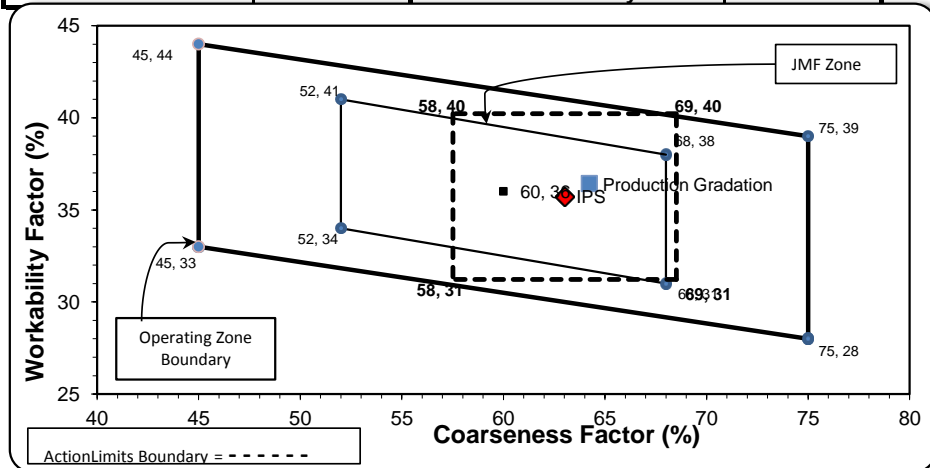
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

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"	85.5	100.0	100.0	92.9	7.1	7.1
1/2"	43.1	99.6	100.0	72.0	20.9	28.0
3/8"	19.8	85.6	100.0	59.2	12.8	40.8
#4	4.8	15.0	98.8	44.3	14.9	55.7
#8	3.1	4.3	84.3	36.4	7.8	63.6
#16	2.1	2.6	66.6	28.5	7.9	71.5
#30	2.1	2.3	44.8	19.6	8.9	80.4
#50	1.9	2.2	16.0	7.7	11.9	92.3
#100	1.9	2.1	2.8	2.3	5.4	97.7
LBW	2.0	1.8	1.0	1.6	0.7	98.4

*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:	64	Workability Factor:	36
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Initial Production Sample (IPS)

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	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:

Aggregate Optimization Chart

MIX ID: WSN175E9

Production Gradation Report

PLANT #: **P-36**

Sample Date: 3/27/17

Concrete Grade: **S2M (SPECIAL, 5000 PSI)**

Contractor: _____

Dates Test Represents: 3/27/2017 to 4/2/2017

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1455	8.67	2.69	48.7
26A	71-47	Presque Isle	300	1.83	2.62	10.1
2NS	63-115	Ray Road	1230	7.44	2.65	41.2
Total Wt			2985	17.94		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"	85.5	100.0	100.0	92.9	7.1	7.1
1/2"	43.1	95.3	100.0	71.8	21.1	28.2
3/8"	19.8	80.1	100.0	58.9	12.9	41.1
#4	4.8	14.2	96.7	43.6	15.3	56.4
#8	3.1	3.6	80.3	35.0	8.7	65.0
#16	2.1	1.8	62.0	26.8	8.2	73.2
#30	2.1	1.4	45.2	19.8	7.0	80.2
#50	1.9	1.3	21.6	10.0	9.8	90.0
#100	1.9	1.2	3.9	2.7	7.3	97.3
LBW	2.0	1.0	0.5	1.3	1.4	98.7

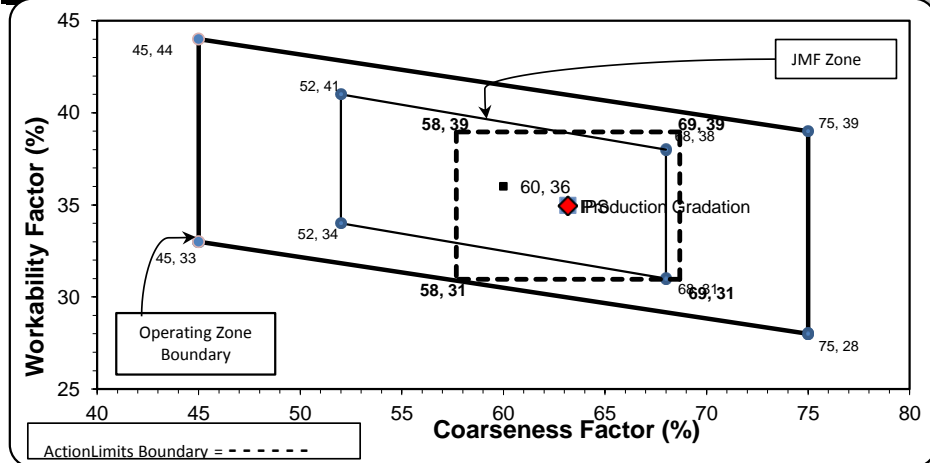


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Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **63** Workability Factor: **35**



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#50	10.0	9.8	90.0
#100	2.7	7.3	97.3
LBW	1.3	1.4	98.7

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 SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

MIX ID'S: DDS257E7 and DDS257E8

Production Gradation Report

PLANT #: **P-38**

Sample Date: 3/27/17

Concrete Grade: **S2M**

Contractor: _____

Dates Test Represents: 3/27/2017 to 4/2/2017

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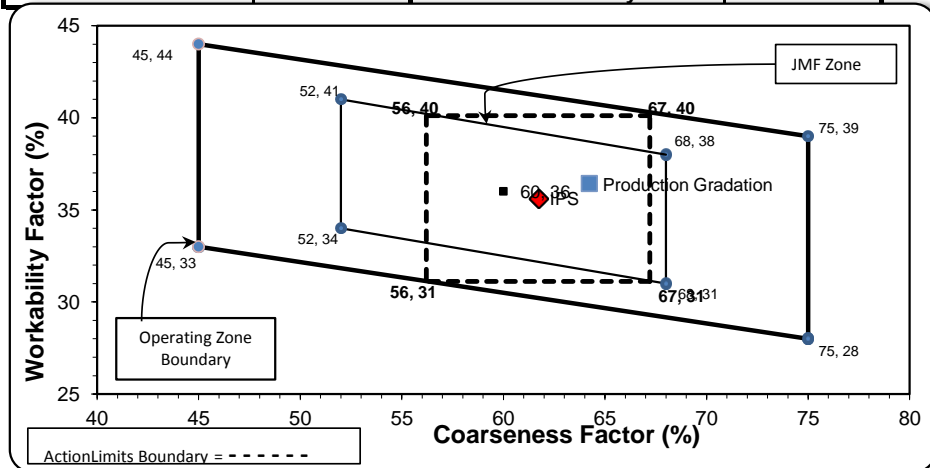


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#30	21.8	6.7	78.2
#50	9.1	12.6	90.9
#100	1.7	7.4	98.3
LBW	1.1	0.6	98.9

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