

Aggregate Optimization Chart

MIX ID'S: DDS257E7, DDS257E5 and DDS257E8

Production Gradation Report

PLANT #: **P-103**

Sample Date: 10/16/17

Concrete Grade: **S2M**

Contractor: _____

Dates Test Represents: 10/16/2017 to 10/22/2017

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1700	10.13	2.69	53.9
26A	58-003	Stoneco	155	0.92	2.69	4.9
2NS	81-93	Burmeister	1300	7.89	2.64	41.2
Total Wt			3155	18.94		100.0

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



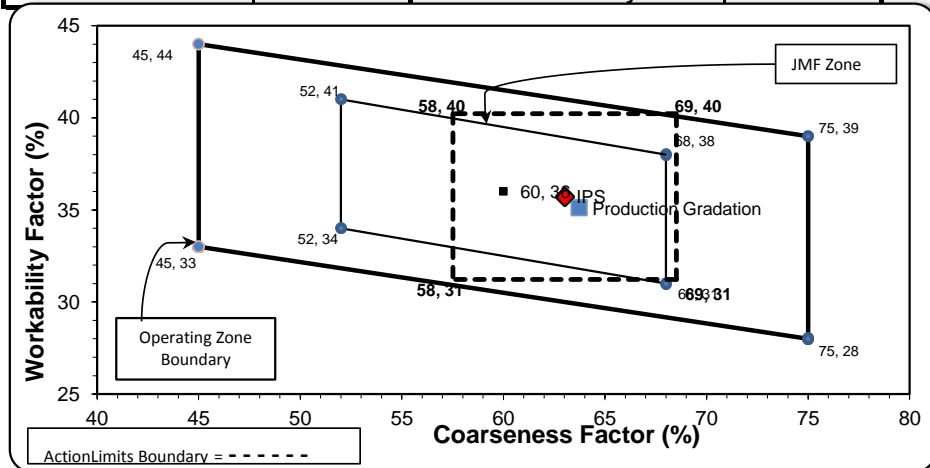
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

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"	99.2	100.0	100.0	99.6	0.4	0.4
3/4"	83.3	100.0	100.0	91.0	8.6	9.0
1/2"	46.1	99.6	100.0	70.9	20.1	29.1
3/8"	24.3	88.6	100.0	58.7	12.3	41.3
#4	3.0	22.7	96.0	42.3	16.4	57.7
#8	1.1	6.6	83.0	35.1	7.2	64.9
#16	0.9	2.7	68.3	28.8	6.4	71.2
#30	0.8	1.8	48.7	20.6	8.2	79.4
#50	0.7	1.5	20.6	8.9	11.6	91.1
#100	0.6	1.4	4.1	2.1	6.9	97.9
LBW	0.6	1.1	1.1	0.8	1.3	99.2

*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: **35**



Initial Production Sample (IPS)

Coarseness Factor: 63		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"	99.2	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'S: DDS257E7, DDS257E5 and DDS257E8

Production Gradation Report

PLANT #: **P-38**

Sample Date: 10/16/17

Concrete Grade: **S2M**

Contractor: _____

Dates Test Represents: 10/16/2017 to 10/22/2017

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1700	10.13	2.69	53.9
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1"	99.2	100.0	100.0	99.6	0.4	0.4
3/4"	83.3	100.0	100.0	91.0	8.6	9.0
1/2"	46.1	99.6	100.0	70.9	20.1	29.1
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#4	3.0	22.7	96.0	42.3	16.4	57.7
#8	1.1	6.6	83.0	35.1	7.2	64.9
#16	0.9	2.7	68.3	28.8	6.4	71.2
#30	0.8	1.8	48.7	20.6	8.2	79.4
#50	0.7	1.5	20.6	8.9	11.6	91.1
#100	0.6	1.4	4.1	2.1	6.9	97.9
LBW	0.6	1.1	1.1	0.8	1.3	99.2

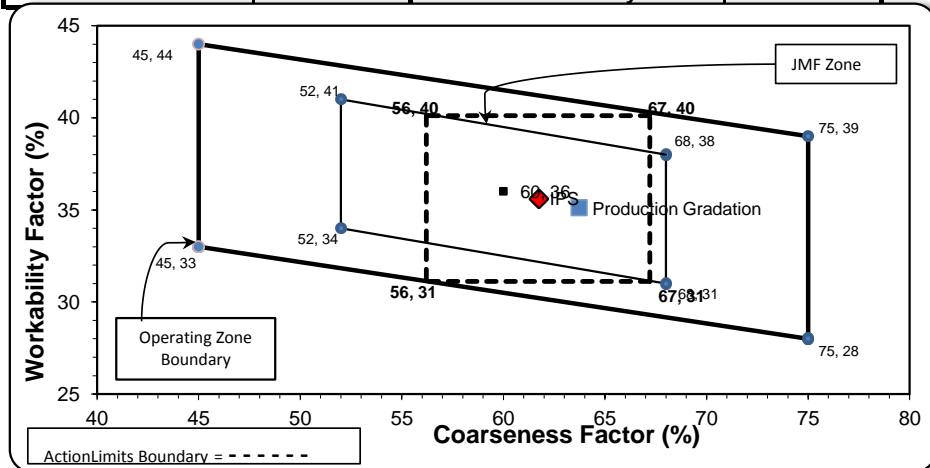


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Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor:	64	Workability Factor:	35
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Initial Production Sample (IPS)

Coarseness Factor:	62		
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"	99.2	0.8	0.8
3/4"	91.1	8.1	8.9
1/2"	72.0	19.1	28.0
3/8"	60.3	11.7	39.7
#4	43.4	16.9	56.6
#8	35.6	7.8	64.4
#16	28.4	7.2	71.6
#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

PREPARED BY:
 SM, LLC Technical Service

Approved By: