

Aggregate Optimization Chart

MIX ID: DDT0F7ET

Production Gradation Report

PLANT #: **P-102**

Sample Date: 6/4/18

Concrete Grade: **TM**

Contractor: _____

Dates Test Represents: 6/5/2018 through 6/11/2018

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1500	8.94	2.69	49.3
26A	58-003	Stoneco	340	2.03	2.69	11.2
2NS	38-046	Chelsea	1200	7.26	2.65	39.5
Total Wt			3040	18.22		100.0

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



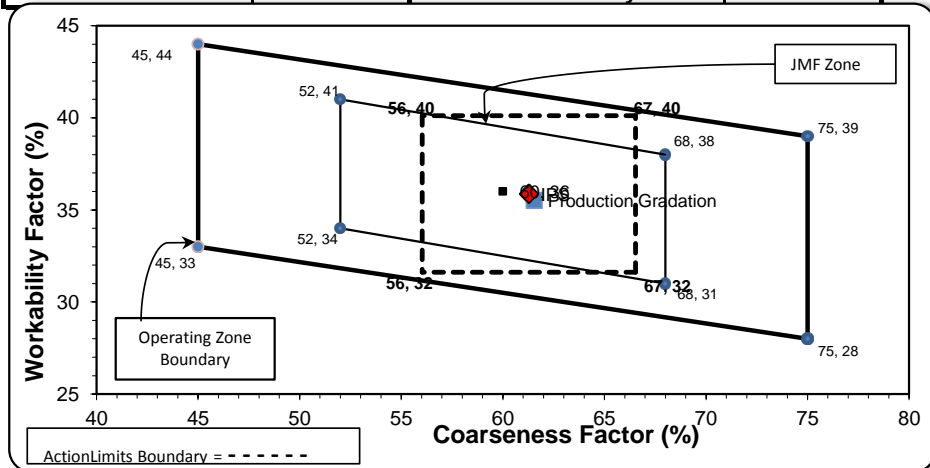
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

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"	99.8	100.0	100.0	99.9	0.1	0.1
3/4"	83.7	100.0	100.0	92.0	7.9	8.0
1/2"	44.8	99.5	100.0	72.7	19.3	27.3
3/8"	22.5	87.0	100.0	60.3	12.4	39.7
#4	2.8	11.6	100.0	42.2	18.2	57.8
#8	0.9	2.9	88.0	35.5	6.6	64.5
#16	0.8	1.8	65.0	26.3	9.3	73.7
#30	0.7	1.1	42.0	17.0	9.2	83.0
#50	0.6	1.0	20.0	8.3	8.7	91.7
#100	0.5	1.0	3.0	1.5	6.8	98.5
LBW	0.4	0.8	0.8	0.6	0.9	99.4

*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:	62	Workability Factor:	36
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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"	89.2	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:

Approved By:

Aggregate Optimization Chart

MIX ID: DDT0F7ET

Production Gradation Report

PLANT #: **P-36**

Sample Date: 6/4/18

Concrete Grade: **TM**

Contractor: _____

Dates Test Represents: 6/5/2018 through 6/11/2018

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1670	10.21	2.62	55.8
26A	71-47	Presque Isle	100	0.61	2.62	3.3
2NS	63-92	AA Grange Hall	1225	7.41	2.65	40.9
Total Wt			2995	18.23		100.0

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



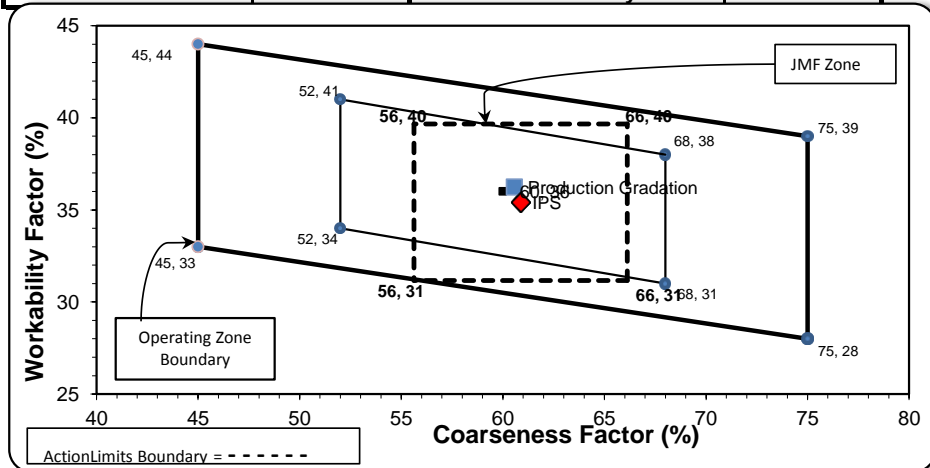
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

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"	90.7	100.0	100.0	94.8	5.2	5.2
1/2"	53.6	96.5	100.0	74.0	20.8	26.0
3/8"	31.6	85.6	100.0	61.4	12.6	38.6
#4	6.1	24.6	97.3	44.0	17.4	56.0
#8	3.1	8.4	83.7	36.2	7.8	63.8
#16	2.6	4.7	67.9	29.4	6.9	70.6
#30	2.5	3.7	48.7	21.4	7.9	78.6
#50	2.4	3.3	22.1	10.5	10.9	89.5
#100	2.2	3.1	2.6	2.4	8.1	97.6
LBW	1.9	2.5	0.2	1.2	1.2	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: **61** **Workability Factor:** **36**



Initial Production Sample (IPS)

Coarseness Factor: **61**
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"	100.0	0.0	0.0
3/4"	95.9	4.1	4.1
1/2"	74.3	21.5	25.7
3/8"	60.7	13.6	39.3
#4	42.6	18.1	57.4
#8	35.4	7.2	64.6
#16	28.7	6.7	71.3
#30	20.5	8.2	79.5
#50	9.8	10.7	90.2
#100	2.1	7.7	97.9
LBW	0.9	1.2	99.1

PREPARED BY:
 SM, LLC Technical Service

Approved By: