PLANT #: P-102

Sample Date:

7/1/24 Concrete Grade: **S2M**, **3500HP**

Dates Test Represents:		7/2/2024	through	7/8/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	50.0
26A	58-003	Stoneco	350	2.09	2.69	11.3
2NS	63-114	Highland	1200	7.26	2.65	38.7

Contractor:

MDOT No.:





Superior Materials, LLC 30701 W. 10 Mile Rd. Suite 500

Farmington Hills, MI 48336

Total Wt		3100	18.58		100.0 < Verify this r		number is 100%	
Sieve	6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	100.0	100	0.0	100.0	100.0	0.0	0.0	
1.5"	100.0	100	0.0	100.0	100.0	0.0	0.0	
1"	100.0	100	0.0	100.0	100.0	0.0	0.0	
3/4"	88.4	100.0		100.0	94.2	5.8	5.8	
1/2"	43.5	99.2		100.0	71.7	22.5	28.3	
3/8"	17.8	89	.5	100.0	57.7	13.9	42.3	
#4	2.7	10	.0	98.8	40.7	17.0	59.3	
#8	1.6	3.	0	86.1	34.5	6.3	65.5	
#16	1.3	2.5		69.7	27.9	6.6	72.1	
#30	1.2	2.2		50.3	20.3	7.6	79.7	
#50	1.1	2.1		18.5	7.9	12.4	92.1	
#100	1.0	2.	0	3.0	1.9	6.1	98.1	
LBW	0.8	1.	9	0.6	0.8	1.0	99.2	

*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

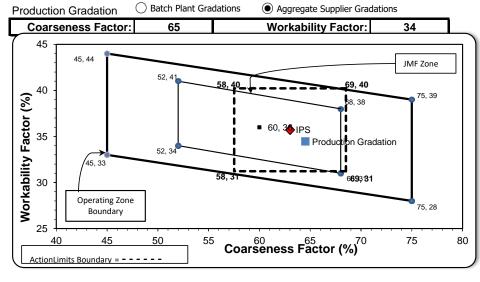
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	63	
Work	ability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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

Approved By:

PREPARED BY: SM, LLC Technical Service PLANT #: P-103

Sample Date:

7/1/24 Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	7/2/2024	through	7/8/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	50.0
267	E0 003	Stonogo	250	2.00	2.60	11 2

Contractor:

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	50.0
26A	58-003	Stoneco	350	2.09	2.69	11.3
2NS	63-114	Highland	1200	7.26	2.65	38.7
		Total Wt	3100	18.58		100.0

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

	Total Wt	3100	18.58		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	6 A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	10	0.0	100.0	100.0	0.0	0.0
1.5"	100.0	10	0.0	100.0	100.0	0.0	0.0
1"	100.0	10	0.0	100.0	100.0	0.0	0.0
3/4"	88.4	10	0.0	100.0	94.2	5.8	5.8
1/2"	43.5	99	9.2	100.0	71.7	22.5	28.3
3/8"	17.8	89	9.5	100.0	57.7	13.9	42.3
#4	2.7	1(0.0	98.8	40.7	17.0	59.3
#8	1.6	3	.0	86.1	34.5	6.3	65.5
#16	1.3	2.5		69.7	27.9	6.6	72.1
#30	1.2	2.2		50.3	20.3	7.6	79.7
#50	1.1	2.1		18.5	7.9	12.4	92.1
#100	1.0	2.0		3.0	1.9	6.1	98.1
LBW	0.8	1	.9	0.6	0.8	1.0	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 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation	O Batch Plant Gra	dations Aggregate Supplier Gradations	
Coarseness Factors	65	Workability Factor: 34	
45	52, 41	58, 40 69, 40 88, 38 Production Gradation 6693 31	F Zone 75, 39
25 40 45 ActionLimits Boundary = -	50 55	Coarseness Factor (%) ⁷⁰	5 80

Intial Production Sample (IPS)

Coars	eness Factor:	63	
Work	ability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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:

PLANT #: 12

Sample Date:

7/1/24

Total Wt

Contractor:

Concrete Grade: S2M, 3500HP

100.0

Dates Test F	Represents:	7/2/2024	through	7/8/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1520	9.30	2.62	49.8
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3

3050

18.57

MDOT No.:

<---- Verify this number is 100%

SUPERIOR MATERIALS

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.

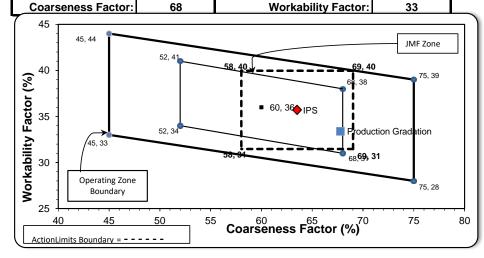
*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

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"	93.4	100.0	100.0	96.7	3.3	3.3
3/4"	65.6	100.0	100.0	82.9	13.9	17.1
1/2"	22.4	95.6	100.0	60.9	22.0	39.1
3/8"	12.6	83.8	100.0	54.8	6.0	45.2
#4	3.3	18.7	96.0	42.2	12.7	57.8
#8	2.5	3.7	78.8	33.4	8.8	66.6
#16	2.3	2.0	62.6	26.6	6.8	73.4
#30	2.3	1.7	47.6	20.5	6.1	79.5
#50	2.2	1.6	25.6	11.6	8.9	88.4
#100	2.1	1.5	5.5	3.4	8.2	96.6
LBW	1.6	1.3	0.6	1.2	2.2	98.8
Production Gr		93 35 11 11 11	lations			on Sample (IPS
		144 1 1 1114 - 4				



Coarseness Factor:		64	
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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"	59.2	12.1	40.8
#4	41.5	17.7	58.5
#8	35.7	5.8	64.3
#16	27.9	7.9	72.1
#30	18.3	9.5	81.7
#50	7.3	11.0	92.7
#100	2.0	5.3	98.0
LBW	0.9	1.1	99.1

PREPARED BY: SM, LLC Technical Service Approved By:

PLANT #: p11

Sample Date:

7/1/24 Concrete Grade: S2M, 3500HP 7/8/2024

Dates Test F	Represents:	7/2/2024	through	7/8/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1520	9.30	2.62	49.8
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3

Contractor:

MDOT No.:



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

	Total Wt	3050 18.57		100.0	< Verify this n	umber 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"	98.7	100.0	100.0	99.4	0.6	0.6
3/4"	83.8	100.0	100.0	91.9	7.4	8.1
1/2"	43.2	95.6	100.0	71.3	20.7	28.7
3/8"	22.2	83.8	100.0	59.6	11.6	40.4
#4	5.2	18.7	96.0	43.1	16.5	56.9
#8	3.3	3.7	78.8	33.8	9.4	66.2
#16	2.0	2.0	62.6	26.4	7.3	73.6
#30	1.7	1.7	47.6	20.2	6.2	79.8
#50	1.6	1.6	25.6	11.3	8.9	88.7
#100	1.5	1.5	5.5	3.1	8.2	96.9
LBW	1.3	1.3	0.6	1.0	2.1	99.0

*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

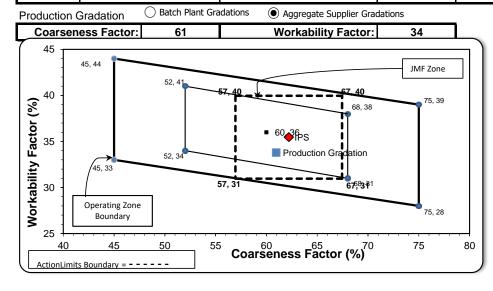
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coarseness Factor:		62	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

Approved By: PREPARED BY: SM, LLC Technical Service

7/1/24

PLANT #: P-35

Sample Date:

Concrete Grade: S2M, 3500HP

Contractor:

Dates Test F	Represents:	7/2/2024	through	7/8/2024		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	50.0
26A	58-003	Stoneco	350	2.09	2.69	11.3
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7
		Total Wt	3100	18 58		100.0

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

	Total Wt	3100	18.58		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	i A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	10	0.0	100.0	100.0	0.0	0.0
1.5"	100.0	10	0.0	100.0	100.0	0.0	0.0
1"	100.0	10	0.0	100.0	100.0	0.0	0.0
3/4"	88.4	10	0.0	100.0	94.2	5.8	5.8
1/2"	43.5	99).2	100.0	71.7	22.5	28.3
3/8"	17.8	89).5	100.0	57.7	13.9	42.3
#4	2.7	10	0.0	98.2	40.5	17.2	59.5
#8	1.6	3.	.0	85.4	34.2	6.3	65.8
#16	1.3	2	5	63.5	25.5	8.7	74.5
#30	1.2	2	.2	41.7	17.0	8.5	83.0
#50	1.1	2	.1	19.2	8.2	8.8	91.8
#100	1.0	2	.0	3.1	1.9	6.3	98.1
LBW	0.8	1.	.9	0.4	0.8	1.2	99.2

*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

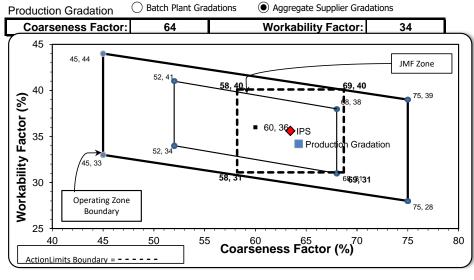
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coarseness Factor:		63	
Work	ability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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"	93.1	6.9	6.9
1/2"	70.0	23.1	30.0
3/8"	59.1	10.9	40.9
#4	46.0	13.1	54.0
#8	35.6	10.4	64.4
#16	27.2	8.4	72.8
#30	19.8	7.4	80.2
#50	10.1	9.7	89.9
#100	2.5	7.6	97.5
LBW	0.9	1.6	99.1

PREPARED BY: SM, LLC Technical Service Approved By:

PLANT #: P-38

Sample Date:

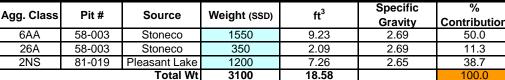
Dates Test Represents:

7/1/24 Concrete Grade: S2M, 3500HP

7/2/2024	through	7/8/2024		
Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
Stoneco	1550	9.23	2.69	50.0
Stonogo	250	2.00	2.60	11.2

Contractor:

MDOT No.:



---- Verify this number is 100%

SUPE	RIOR

Superior Materials, LLC 30701 W. 10 Mile Rd.

Suite 500 Farmington Hills, MI 48336

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	1
2"	100.0	100.0	100.0	100.0	0.0	0.0	ı
1.5"	100.0	100.0	100.0	100.0	0.0	0.0	ı
1"	100.0	100.0	100.0	100.0	0.0	0.0	ı
3/4"	88.4	100.0	100.0	94.2	5.8	5.8	ı
1/2"	43.5	99.2	100.0	71.7	22.5	28.3	ı
3/8"	17.8	89.5	100.0	57.7	13.9	42.3	ı
#4	2.7	10.0	98.2	40.5	17.2	59.5	ı
#8	1.6	3.0	85.4	34.2	6.3	65.8	n
#16	1.3	2.5	63.5	25.5	8.7	74.5	ı
#30	1.2	2.2	41.7	17.0	8.5	83.0	n
#50	1.1	2.1	19.2	8.2	8.8	91.8	l
#100	1.0	2.0	3.1	1.9	6.3	98.1	а

*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

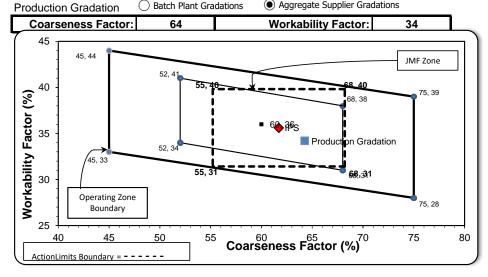
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

LBW 0.8 1.9 0.4 Aggregate Supplier Gradations Batch Plant Gradations



Intial Production Sample (IPS)

99.2

0.8

Coars	Coarseness Factor:		
Worl	Workability Factor:		
Sieve	Cumulative	%	Cumulative
	% Passing	Retained	% 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

Total Wt

7/1/24

PLANT #: P-O2

Sample Date:

Concrete Grade: S2M, 3500HP

Contractor:

Dates Test Represents: 7/2/2024 7/8/2024 through Specific ft³ Agg. Class Pit# Source Weight (SSD) Gravity Contribution 6AA 71-47 Presque Isle 1520 9.30 2.62 49.8 26A 71-47 Presque Isle 300 1.83 2.62 9.8 2NS 63-115 Ray Rd 1230 7.44 2.65 40.3

3050

MDOT No.:

SUPERIOR MATERIALS

<---- 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"	93.4	100.0	100.0	96.7	3.3	3.3
3/4"	65.6	100.0	100.0	82.9	13.9	17.1
1/2"	22.4	95.6	100.0	60.9	22.0	39.1
3/8"	12.6	83.8	100.0	54.8	6.0	45.2
#4	3.3	18.7	96.0	42.2	12.7	57.8
#8	2.5	3.7	78.8	33.4	8.8	66.6
#16	2.3	2.0	62.6	26.6	6.8	73.4
#30	2.3	1.7	47.6	20.5	6.1	79.5
#50	2.2	1.6	25.6	11.6	8.9	88.4
#100	2.1	1.5	5.5	3.4	8.2	96.6
LBW	1.6	1.3	0.6	1.2	2.2	98.8

18.57

*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max.,

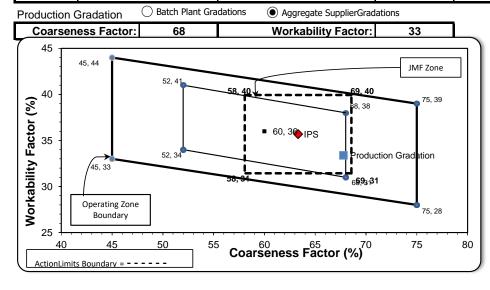
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
Workability Factor:		36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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"	95.6	4.4	4.4
1/2"	73.1	22.6	26.9
3/8"	59.3	13.8	40.7
#4	42.8	16.5	57.2
#8	35.7	7.1	64.3
#16	28.9	6.8	71.1
#30	20.7	8.2	79.3
#50	9.9	10.8	90.1
#100	2.1	7.8	97.9
LBW	0.9	1.2	99.1

PREPARED BY: SM, LLC Technical Service Approved By: