PLANT #: P-102

1.7

Sample Date:

#100

5/27/24 Concrete Grade: S2M, 3500HP 6/3/2024

Dates Test F	Represents:	5/28/2024	through	6/3/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1700	10.13	2.69	54.8
26A	58-003	Stoneco	200	1.19	2.69	6.5
2NS	63-114	Highland	1200	7.26	2.65	38.7
		Total Wt	3100	18.58		100.0

Contractor:

MDOT No.:



Verify this number is 100%

ined	Cumulative % Retained	Superior Materials, LLC
)	0.0	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	ı
1.5"	100.0	100.0	100.0	100.0	0.0	0.0	ı
1"	99.9	100.0	100.0	99.9	0.1	0.1	ı
3/4"	86.4	100.0	100.0	92.5	7.4	7.5	ı
1/2"	47.4	99.7	100.0	71.1	21.4	28.9	ı
3/8"	26.3	87.0	100.0	58.7	12.4	41.3	ı
#4	4.0	5.2	98.9	40.8	17.9	59.2	ı
#8	2.1	1.7	85.2	34.2	6.6	65.8	n
#16	1.9	1.4	67.8	27.4	6.9	72.6	ı
#30	1.9	1.2	48.8	20.0	7.4	80.0	n
#50	1.8	1.1	18.8	8.3	11.7	91.7	ı

1.1

3.0

2.2

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

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

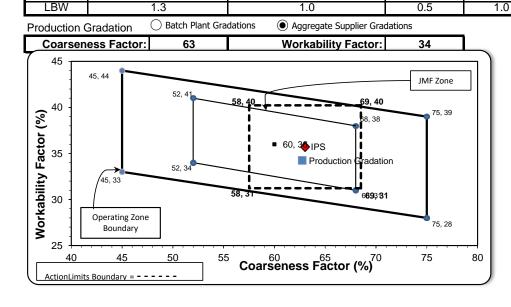
nom. max., #100 and #200 sieves.

*% 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)

97.8

99.0

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

Highland

Total Wt

PLANT #: P-103

Pit#

63-114

Sample Date:

Agg. Class

6AA

26A

2NS

5/27/24 Concrete Grade: S2M, 3500HP

7.26

18.58

2.65

Dates Test Represents: 5/28/2024 6/3/2024 through Specific % ft³ Source Weight (SSD) Gravity Contribution 58-003 Stoneco 1700 10.13 2.69 54.8 58-003 Stoneco 200 1.19 2.69 6.5

1200

3100

Contractor:

MDOT No.:



100.0

<---- Verify this number is 100%

SUPERIOR MATERIALS	

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	l
1.5"	100.0	100.0	100.0	100.0	0.0	0.0	l
1"	99.9	100.0	100.0	99.9	0.1	0.1	l
3/4"	86.4	100.0	100.0	92.5	7.4	7.5	l
1/2"	47.4	99.7	100.0	71.1	21.4	28.9	l
3/8"	26.3	87.0	100.0	58.7	12.4	41.3	
#4	4.0	5.2	98.9	40.8	17.9	59.2	
#8	2.1	1.7	85.2	34.2	6.6	65.8	n
#16	1.9	1.4	67.8	27.4	6.9	72.6	1
#30	1.9	1.2	48.8	20.0	7.4	80.0	n
#50	1.8	1.1	18.8	8.3	11.7	91.7	1
#100	1.7	1.1	3.0	2.2	6.2	97.8	а

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

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

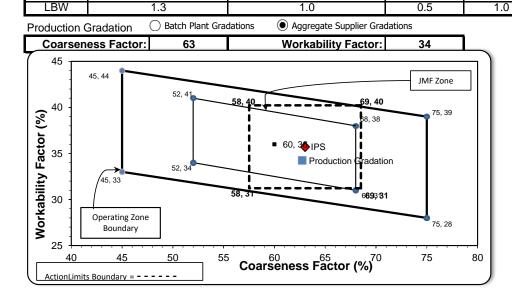
nom. max., #100 and #200 sieves.

*% 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.



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:

Sieve

2"

1.5"

3/4"

1/2'

3/8'

#4

#8

#16

#30

#50

#100

5/27/24

6AA

100.0

100.0

98.3

83.9

47.7

28.0

6.3

3.9

3.4

3.2

3.0

2.8

Contractor:

Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	5/28/2024	through	6/3/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1550	9.48	2.62	50.8
26A	71-47	Presque Isle	270	1.65	2.62	8.9
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3

1.7

1.6

1.5

MDOT No.:

Total Wt	3050	18.57		100.0		< Verify this number is 100%		
A	26A		2NS	Cumulative % Passing	% Retained	Cumulative % Retained		
.0	10	0.0	100.0	100.0	0.0	0.0		
.0	10	0.0	100.0	100.0	0.0	0.0		
3	100.0		100.0	99.1	0.9	0.9		
9	100.0		100.0	91.8	7.3	8.2	l	
7	94	l.9	100.0	73.0	18.8	27.0		
0	82	2.5	100.0	61.9	11.1	38.1	*N	
	15	5.8	95.9	43.3	18.6	56.7	*⊅	
)	3	.3	81.4	35.1	8.2	64.9	nor	
	2	.0	66.0	28.5	6.6	71.5	*%	

50.8

27.2

6.0

22.3

12.6

4.0

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.,

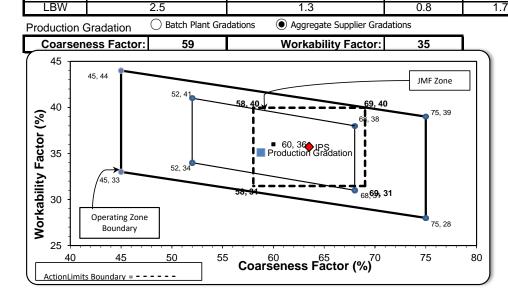
om. max., #100 and #200 sieves.

% 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)

77.7

87.4

96.0

98.3

6.3

9.6

8.7

Coarseness Factor:		64	
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"	59.2	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

Approved By: PREPARED BY: SM, LLC Technical Service

PLANT #: p11

Sample Date:

5/27/24 Concrete Grade: S2M, 3500HP 6/3/2024

Dates Test F	Represents:	5/28/2024	through	6/3/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1450	8.87	2.62	47.5
26A	71-47	Presque Isle	370	2.26	2.62	12.1
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3

MDOT No.:

Contractor:

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1450	8.87	2.62	47.5
26A	71-47	Presque Isle	370	2.26	2.62	12.1
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
<u> </u>		Total Wt	3050	18.57		100.0

	~ .	A- 11		_ 3
Su	perio	r Mat	terials	s, LLC
307	701 W	/. 10 N	∕lile Ro	d.
Sui	te 500	0		
Far	mingt	ton Hi	lls, MI	48336

	Total Wt	3050	18.57		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	iA.	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"	98.6	100	0.0	100.0	99.3	0.7	0.7
3/4"	77.8	100	0.0	100.0	89.4	9.9	10.6
1/2"	35.4	94	.9	100.0	68.7	20.8	31.3
3/8"	19.0	82	2.5	100.0	59.4	9.3	40.6
#4	3.6	15	5.8	96.1	42.4	17.0	57.6
#8	2.3	3.	3	84.9	35.7	6.7	64.3
#16	1.9	2.	.0	69.9	29.3	6.4	70.7
#30	1.8	1.	.7	48.5	20.6	8.7	79.4
#50	1.7	1.	.6	23.0	10.3	10.3	89.7
#100	1.6	1.	5	6.6	3.6	6.7	96.4
LBW	1.3	1.	.3	1.2	1.3	2.3	98.7

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

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

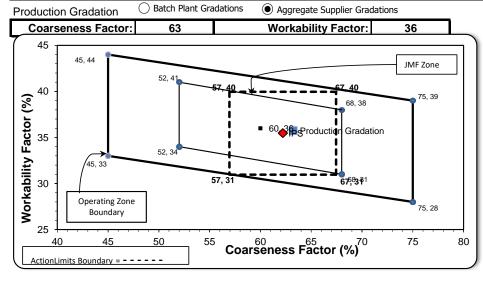
nom. max., #100 and #200 sieves.

*% 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:	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

PREPARED BY: SM, LLC Technical Service

PLANT #: P-35

Sample Date:

5/27/24 Concrete Grade: **S2M**, **3500HP**

Dates Test F	Represents:	5/28/2024	through	6/3/2024		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific	%
Ayy. Class	FIL#	Source	weight (SSD)	IL	Gravity	Contribution
6AA	58-003	Stoneco	1700	10.13	2.69	54.8
26A	58-003	Stoneco	200	1.19	2.69	6.5
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7
Total Wt			3100	18.58		100.0

Contractor:

MDOT No.:



---- Verify this number is 100%

Cumulative % Retained	<u>Superior Materials, LLC</u> 30701 W. 10 Mile Rd.
0.0	Suite 500
0.0	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"	99.9	100.0	100.0	99.9	0.1	0.1
3/4"	86.4	100.0	100.0	92.5	7.4	7.5
1/2"	47.4	99.7	100.0	71.1	21.4	28.9
3/8"	26.3	87.0	100.0	58.7	12.4	41.3
#4	4.0	5.2	99.3	41.0	17.8	59.0
#8	2.1	1.7	87.4	35.1	5.9	64.9
#16	1.9	1.4	65.2	26.4	8.7	73.6
#30	1.9	1.2	40.6	16.8	9.5	83.2
#50	1.8	1.1	17.6	7.9	9.0	92.1
#100	1.7	1.1	2.8	2.1	5.8	97.9
LBW	1.3	1.0	0.3	0.9	1.2	99.1

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

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

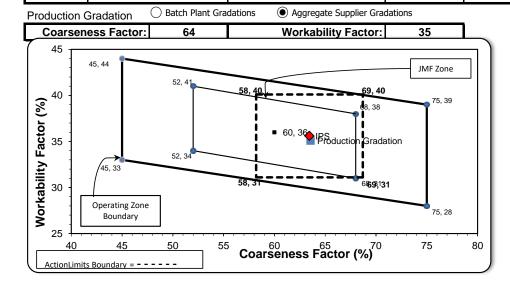
nom. max., #100 and #200 sieves.

*% 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"	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

5/27/24

PLANT #: P-38

Sample Date:

Concrete Grade: S2M, 3500HP

Dates Test Represents:		5/28/2024	through	6/3/2024		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1700	10.13	2.69	54.8
26A	58-003	Stoneco	200	1.19	2.69	6.5
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7
Total Wt			3100	18.58		100.0

Contractor:

MDOT No.:



----- Verify this number is 100%

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

Cumulative Cumulative 6AA 26A % Retained Sieve 2NS % Passing % 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 99.9 100.0 100.0 99.9 0.1 0.1 3/4" 86.4 100.0 100.0 92.5 7.4 7.5 1/2' 47.4 99.7 100.0 71.1 21.4 28.9 3/8' 87.0 100.0 58.7 12.4 26.3 41.3 #4 4.0 5.2 99.3 41.0 17.8 59.0 #8 2.1 1.7 87.4 35.1 5.9 64.9 #16 1.9 1.4 65.2 26.4 8.7 73.6 #30 1.2 9.5 1.9 40.6 16.8 83.2 #50 1.8 1.1 17.6 7.9 9.0 92.1 #100 1.7 1.1 2.8 2.1 5.8 97.9

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

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

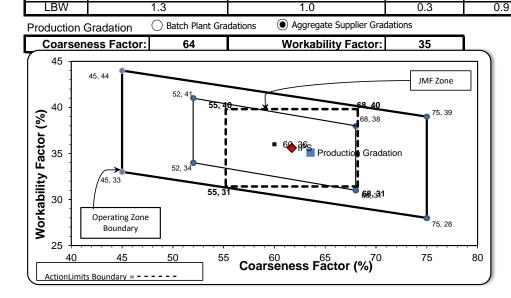
nom. max., #100 and #200 sieves.

*% 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:	62	
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"	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

PLANT #: P-02

Concrete Grade: S2M, 3500HP

5/27/24 Sample Date: Dates Test Represents: 5/28/2024

_			
	through	6/3/2024	

24100 10011	100.000	0,-0,-0-	u o u.g	0/0/2021		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1550	9.48	2.62	50.8
26A	71-47	Presque Isle	270	1.65	2.62	8.9
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

Contractor:

MDOT No.:



Cumulative % Retained	<u>Superior Materials, LLC</u> 30701 W. 10 Mile Rd.
0.0	Suite 500
0.0	Farmington Hills, MI 48336

Cumulative 6AA 26A % Retained Sieve 2NS % Passing 2" 100.0 100.0 100.0 100.0 0.0 1.5" 100.0 100.0 100.0 100.0 0.0 0.0 98.3 100.0 100.0 99.1 0.9 0.9 3/4" 83.9 100.0 100.0 91.8 7.3 8.2 1/2' 47.7 94.9 100.0 73.0 18.8 27.0 3/8' 28.0 82.5 100.0 61.9 38.1 11.1 #4 6.3 15.8 95.9 43.3 18.6 56.7 #8 3.9 3.3 81.4 35.1 8.2 64.9 #16 3.4 2.0 66.0 28.5 6.6 71.5 #30 3.2 50.8 22.3 6.3 77.7 1.7 #50 3.0 1.6 27.2 12.6 9.6 87.4 #100 2.8 1.5 6.0 4.0 8.7 96.0 LBW 1.7

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

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

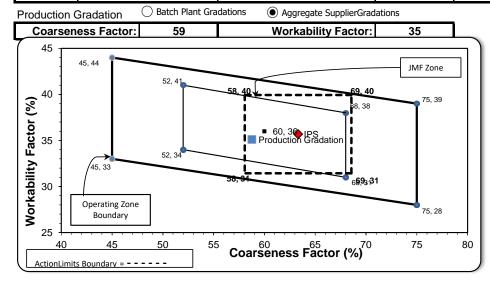
nom. max., #100 and #200 sieves.

*% 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	
Workability Factor:		36	
Sieve	Cumulative	%	Cumulative
	% 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