PLANT #: P-102

Sample Date:

Concrete Grade: P1M, 3500HP 9/2/24

Dates Test F	Represents:	9/3/2024	through	9/9/2024		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1470	8.76	2.69	47.1
IA	58-003	Stoneco	450	2.68	2.69	14.4
2NS	63-114	Highland	1200	7.26	2.65	38.5

MDOT No.:

Contractor:

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 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.

	Total Wt	3120	18.70		100.0	< Verify this n	umber is 100%
Sieve	CA	1/	4	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"	56.8	10	0.0	100.0	79.6	20.4	20.4
3/4"	32.4	10	0.0	100.0	68.2	11.5	31.9
1/2"	16.1	92	2.9	100.0	59.4	8.7	40.6
3/8"	10.0	72.1		100.0	53.6	5.9	46.4
#4	2.8	17	'.2	99.0	41.9	11.7	58.1
#8	1.8	3	4	85.9	34.4	7.5	65.6
#16	1.5	1.	.8	69.7	27.8	6.6	72.2
#30	1.3	1.	.4	51.8	20.7	7.0	79.3
#50	1.2	1.2		23.7	9.9	10.9	90.1
#100	1.1	1.	.2	4.7	2.5	7.4	97.5
LBW	0.6	1.	.0	1.1	0.9	1.6	99.2
Production G	Gradation O Batch Plant Gra	dations • Agg	regate Supplier Gra	adations		Intial Production	on Sample (IPS

Coarseness Factor: Workability Factor: 71 34 JMF Zone Workability Factor (%) Production Gradation 52, 34

Coarseness Factor (%) 70

75

80

Coar	Coarseness Factor:		
Wor	Workability Factor:		
Sieve	Cumulative	%	Cumulative
	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	0.8	98.6

PREPARED BY: SM, LLC Technical Service

50

Operating Zone Boundary

45

ActionLimits Boundary = - - - - -

PLANT #: P-103

Sample Date:

9/2/24 Concrete Grade: P1M, 3500HP

Dates Test Represents:		9/3/2024	through	9/9/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1470	8.76	2.69	47.1
IA	58-003	Stoneco	450	2.68	2.69	14.4
2NS	63-114	Highland	1200	7.26	2.65	38.5

Contractor:

MDOT No.:



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

Total Wt		3120	18.70		100.0	< Verify this n	umber is 100%
Sieve	CA	1/	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"	56.8	10	0.0	100.0	79.6	20.4	20.4
3/4"	32.4	100.0		100.0	68.2	11.5	31.9
1/2"	16.1	92.9		100.0	59.4	8.7	40.6
3/8"	10.0	72	2.1	100.0	53.6	5.9	46.4
#4	2.8	17.2		99.0	41.9	11.7	58.1
#8	1.8	3.4		85.9	34.4	7.5	65.6
#16	1.5	1.8		69.7	27.8	6.6	72.2
#30	1.3	1.4		51.8	20.7	7.0	79.3
#50	1.2	1.2		23.7	9.9	10.9	90.1
#100	1.1	1.2		4.7	2.5	7.4	97.5
LBW	0.6	1.	.0	1.1	0.9	1.6	99.2

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

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

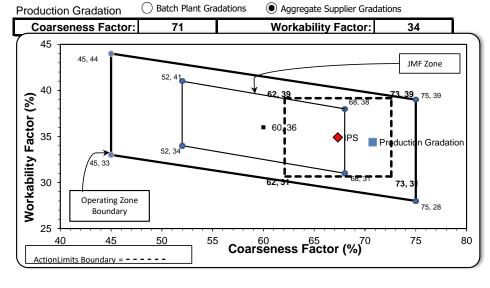
nom. max., #100 and #200 sieves.

 $^{*}\%$ 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.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	0.8	98.6

PREPARED BY: SM, LLC Technical Service Approved BY:

through

1470

450

1200

PLANT #: 15

Pit#

58-003

58-003

81-019

Sample Date:

Agg. Class

CA

IΑ

2NS

Dates Test Represents:

9/2/24 9/3/2024

Source

Stoneco

Stoneco

Pleasant Lake

Contractor:

Concrete Grade: P1M, 3500HP

38.5

9/9/2024 Specific % ft³ Weight (SSD) Gravity Contribution 8.76 2.69 47.1 2.68 2.69 14.4

2.65

MDOT No.:

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

Farmington Hills, MI 48336

Total Wt		3120	18.70		100.0	< Verify this no	umber is 100%
Sieve	CA	1,4	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"	56.8	100	0.0	100.0	79.6	20.4	20.4
3/4"	32.4	100.0		100.0	68.2	11.5	31.9
1/2"	16.1	92.9		100.0	59.4	8.7	40.6
3/8"	10.0	72	.1	100.0	53.6	5.9	46.4
#4	2.8	17.2		97.3	41.2	12.3	58.8
#8	1.8	3.4		83.4	33.4	7.8	66.6 r
#16	1.5	1.8		63.7	25.5	7.9	74.5
#30	1.3	1.4		42.9	17.3	8.2	82.7 r
#50	1.2	1.2		21.7	9.1	8.2	90.9
#100	1.1	1.2		4.8	2.5	6.5	97.5
LBW	0.6	1.	0	0.6	0.7	1.9	99.3

7.26

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

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

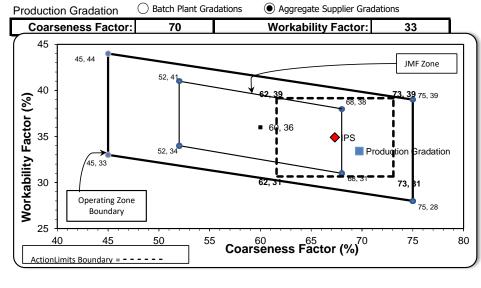
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	0.8	98.6

PLANT #: 12

Sample Date:

#100

9/2/24

Contractor:

Cumulative

3.5

6.9

Concrete Grade: P1M, 3500HP

Dates Test F	Represents:	9/3/2024	through	9/9/2024		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1020	6.24	2.62	33.2
IA	71-47	Presque Isle	850	5.20	2.62	27.7
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
		Total Wt	3070	18.70		100.0

2.0

MDOT No.:

---- Verify this number is 100%

Cumulative

96.5

99.0

SUPERIOR MATERIALS	

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

Sieve	CA	IA	2NS	% Passing	% Retained	% 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"	27.6	100.0	100.0	75.9	24.1	24.1
3/4"	4.2	99.0	100.0	67.9	8.1	32.1
1/2"	1.1	72.4	100.0	59.5	8.4	40.5
3/8"	1.1	46.0	100.0	52.2	7.3	47.8
#4	1.1	9.2	96.9	40.8	11.4	59.2
#8	1.1	3.0	79.3	32.2	8.6	67.8
#16	1.1	2.2	62.9	25.6	6.6	74.4
#30	1.0	2.1	47.5	19.5	6.1	80.5
#50	1.0	2.0	26.3	11.2	8.3	88.8

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

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

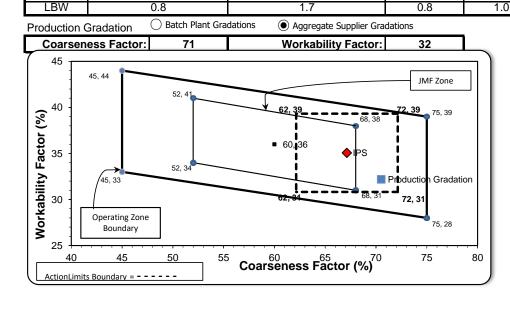
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

7.6

Coars	eness Factor:	67	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	83.9	15.7	16.1
3/4"	74.0	9.8	26.0
1/2"	63.7	10.3	36.3
3/8"	56.4	7.3	43.6
#4	43.0	13.4	57.0
#8	35.1	7.9	64.9
#16	29.0	6.1	71.0
#30	20.9	8.0	79.1
#50	8.1	12.8	91.9
#100	1.6	6.5	98.4
LBW	0.9	0.8	99.1

PREPARED BY: SM, LLC Technical Service

0.9

PLANT #: 21

Sample Date:

9/2/24

Contractor:

MDOT No.:

Concrete Grade: P1M, 3500HP

Dates Test F	Represents:	9/3/2024	through	9/9/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1470	8.76	2.69	47.1
IA	58-003	Stoneco	450	2.68	2.69	14.4
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.5
		Total Wt	3120	18 70		100.0

Source	Weight (SSD)	IL.	Gravity	Contribution
Stoneco	1470	8.76	2.69	47.1
Stoneco	450	2.68	2.69	14.4
Pleasant Lake	1200	7.26	2.65	38.5
Total Wt	3120	18.70		100.0

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

Farmington Hills, MI 48336

Total W		3120	18.70		100.0	< Verify this n	umber is 100%
Sieve	CA	IA		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"	56.8	10	0.0	100.0	79.6	20.4	20.4
3/4"	32.4	10	0.0	100.0	68.2	11.5	31.9
1/2"	16.1	92	2.9	100.0	59.4	8.7	40.6
3/8"	10.0	72	2.1	100.0	53.6	5.9	46.4
#4	2.8	17	7.2	97.3	41.2	12.3	58.8
#8	1.8	3	.4	83.4	33.4	7.8	66.6
#16	1.5	1	.8	63.7	25.5	7.9	74.5
#30	1.3	1	.4	42.9	17.3	8.2	82.7
#50	1.2	1.2		21.7	9.1	8.2	90.9
#100	1.1	1.2		4.8	2.5	6.5	97.5
LBW	0.6	1	.0	0.6	0.7	1.9	99.3

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

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

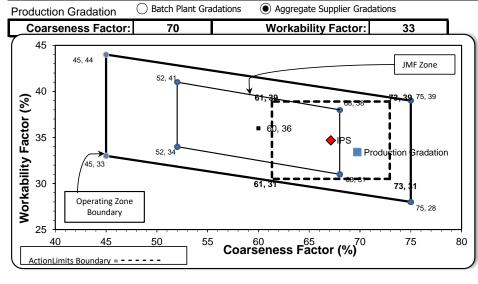
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	eness Factor:	67	
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"	86.9	13.1	13.1
3/4"	76.1	10.8	23.9
1/2"	63.7	12.4	36.3
3/8"	56.2	7.5	43.8
#4	43.2	13.0	56.8
#8	34.7	8.5	65.3
#16	27.5	7.2	72.5
#30	20.6	7.0	79.4
#50	9.0	11.6	91.0
#100	2.1	6.9	97.9
LBW	1.0	1.1	99.0

PREPARED BY: SM, LLC Technical Service Approved By:

PLANT #: P11

Sieve

2"

1.5"

3/4"

1/2'

3/8'

#4

#8

#16

#30

#50

#100

CA

100.0

100.0

27.6

4.2

1.1

1.1

1.1

1.1

1.1

1.0

1.0

0.9

9/2/24 Concrete Grade: P1M, 3500HP Sample Date: Dates Test Represents: 9/3/2024 9/9/2024

Cumulative

% Passing

100.0

100.0

77.6

70.1

61.1

53.2

41.0

32.2

25.6

19.5

11.2

3.6

2NS

100.0

100.0

100.0

100.0

100.0

100.0

96.9

79.3

62.9

47.5

26.3

6.9

MDOT No.:

% Retained

0.0

0.0

22.4

7.5

8.9

7.9

12.2

8.7

6.7

6.1

8.3

7.6

Contractor:

Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	950	5.81	2.62	30.9
IA	71-47	Presque Isle	920	5.63	2.62	30.0
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
	•	Total Wt	3070	18 70		100.0

through

\gg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	950	5.81	2.62	30.9
IA	71-47	Presque Isle	920	5.63	2.62	30.0
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
		Total Wt	3070	18.70		100.0

IΑ

100.0

100.0

100.0

99.0

72.4

46.0

9.2

3.0

2.2

2.1

2.0

2.0

< Verify this	number is	100%

Cumulative

% Retained

0.0

0.0

22.4

29.9

38.9

46.8

59.0

67.8

74.4

80.5

88.8

96.4

SUPERI	OR

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.,

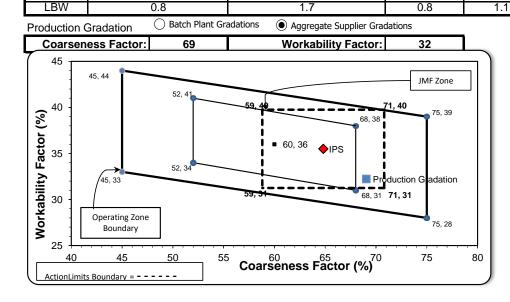
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	65	
Work	ability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.0	0.6	0.6
1"	84.0	15.3	16.0
3/4"	73.5	10.5	26.5
1/2"	65.2	8.2	34.8
3/8"	58.2	7.1	41.8
#4	44.1	14.1	55.9
#8	35.5	8.6	64.5
#16	29.1	6.4	70.9
#30	21.9	7.3	78.1
#50	9.6	12.2	90.4
#100	2.6	7.1	97.4
LBW	1.0	1.6	99.0

PLANT #: P-35

Sample Date:

Concrete Grade: P1M, 3500HP 9/2/24 9/9/2024

Dates Test Represents:		9/3/2024	through	9/9/2024		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1470	8.76	2.69	47.1
IA	58-003	Stoneco	450	2.68	2.69	14.4
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.5
	•	Total Wt	2120	19.70		100.0

Contractor:

MDOT No.:



Superior Materials, LLC 30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

	Total Wt	3120	18.70		100.0	< Verify this no	umber is 100%
Sieve	CA	1/	4	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"	56.8	10	0.0	100.0	79.6	20.4	20.4
3/4"	32.4	10	0.0	100.0	68.2	11.5	31.9
1/2"	16.1	92	2.9	100.0	59.4	8.7	40.6
3/8"	10.0	72	2.1	100.0	53.6	5.9	46.4
#4	2.8	17	7.2	97.3	41.2	12.3	58.8
#8	1.8	3	4	83.4	33.4	7.8	66.6
#16	1.5	1.	.8	63.7	25.5	7.9	74.5
#30	1.3	1.	4	42.9	17.3	8.2	82.7
#50	1.2	1.	2	21.7	9.1	8.2	90.9
#100	1.1	1.	2	4.8	2.5	6.5	97.5
LBW	0.6	1.	.0	0.6	0.7	1.9	99.3

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

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

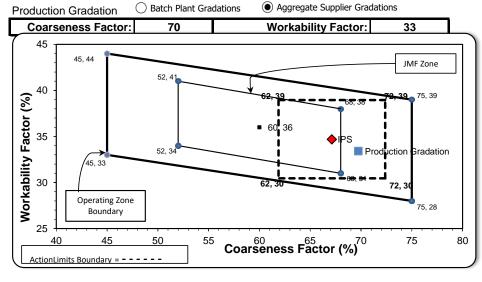
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
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"	86.9	13.1	13.1
3/4"	76.1	10.8	23.9
1/2"	63.7	12.4	36.3
3/8"	56.2	7.5	43.8
#4	43.2	13.0	56.8
#8	34.7	8.5	65.3
#16	27.5	7.2	72.5
#30	20.6	7.0	79.4
#50	9.0	11.6	91.0
#100	2.1	6.9	97.9
LBW	1.0	1.1	99.0

PREPARED BY: SM, LLC Technical Service Approved By:

Total Wt

CA

100.0

100.0

27.6

4.2

1.1

1.1

1.1

1.1

1.1

1.0

1.0

0.9

PLANT #: P-36

Sample Date:

Sieve

2"

1.5"

3/4"

1/2'

3/8'

#4

#8

#16

#30

#50

#100

9/2/24 Concrete Grade: **P1M**, **3500HP**

18.70

Dates Test F	represents:	9/3/2024	through	9/9/2024		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	970	5.93	2.62	31.6
IA	71-47	Presque Isle	900	5.50	2.62	29.3
2NC	63-02	Grange Hall	1200	7.26	2.65	30.1

IΑ

100.0

100.0

100.0

99.0

72.4

46.0

9.2

3.0

2.2

2.1

2.0

2.0

3070

Contractor:

Cumulative

% Retained

0.0

89.9

97.8

99.0

MDOT No.:

% Retained

0.0

0.0

22.9

7.7

8.8

7.7

11.6

7.4

6.0

7.0

10.9

7.9

100.0

Cumulative

% Passing

100.0

100.0

77.1

69.4

60.7

52.9

41.4

34.0

28.0

21.0

10.1

2.2

2NS

100.0

100.0

100.0

100.0

100.0

100.0

98.0

83.8

69.1

51.4

23.5

3.4

<---- Verify this number is 100%

SUPERIOR MATERIALS

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

0.0	
0.0	
22.9	
30.6	
39.3	
47.1	*Maxim
58.6	*Any tw
66.0	nom. ma
72.0	*% Reta
79.0	nom. ma

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

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

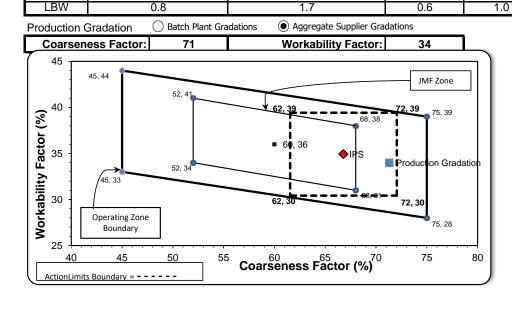
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
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"	85.0	15.0	15.0
3/4"	72.1	12.9	27.9
1/2"	64.5	7.6	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

PREPARED BY: SM, LLC Technical Service Approved By:

PLANT #: P-39

9/2/24 Concrete Grade: P1M, 3500HP Sample Date: 9/3/2024

Dates Test F	Represents:	9/3/2024	through	9/9/2024		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	920	5.63	2.62	30.0
IA	71-47	Presque Isle	900	5.50	2.62	29.3
2NS	44-051	Krake Willis Rd	1250	7.56	2.65	40.7
		Total Wt	3070	18.69		100.0

Contractor:

MDOT No.:



--- Verify this number is 100%

etained	Cumulative	Superior Materials, LLC
01411104	% Retained	30701 W. 10 Mile Rd.
		Ct-a FOO

W. 10 Mile Rd. Suite 500

Farmington Hills, MI 48336

Sieve	CA	IA	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"	27.6	100.0	100.0	78.3	21.7	21.7
3/4"	4.2	99.0	100.0	71.0	7.3	29.0
1/2"	1.1	72.4	100.0	62.3	8.7	37.7
3/8"	1.1	46.0	100.0	54.5	7.7	45.5
#4	1.1	9.2	99.2	43.4	11.1	56.6
#8	1.1	3.0	83.6	35.2	8.2	64.8
#16	1.1	2.2	67.8	28.6	6.7	71.4
#30	1.0	2.1	49.6	21.1	7.5	78.9
#50	1.0	2.0	21.4	9.6	11.5	90.4
#100	0.9	2.0	5.1	2.9	6.7	97.1
LBW	0.8	1.7	0.4	0.9	2.0	99.1

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

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

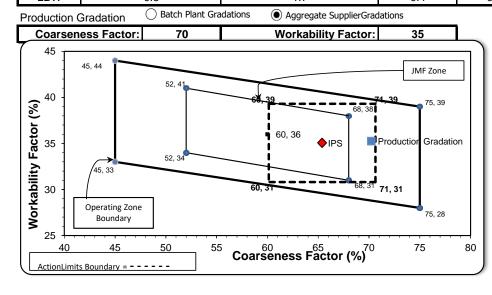
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	83.9	15.7	16.1
3/4"	74.1	9.8	25.9
1/2"	64.3	9.7	35.7
3/8"	57.5	6.8	42.5
#4	44.5	13.1	55.5
#8	35.1	9.4	64.9
#16	27.9	7.2	72.1
#30	21.7	6.2	78.3
#50	12.6	9.1	87.4
#100	3.5	9.1	96.5
LBW	1.2	2.4	98.8

Ray Rd

0.9

Total Wt

1200

3070

PLANT #: P-02

Concrete Grade: P1M, 3500HP

2.65

6.9

39.1

3.5

Sample Date: 9/2/24 Dates Test Represents: Pit#

71-47

71-47

63-115

Agg. Class

CA

IΑ

2NS

#100

9/3/2024	through	9/9/2024		
Source	Weight (SSD)	ft ³	Specific	%
Source	Weight (33b)	11.	Gravity	Contribution
Presque Isle	1020	6.24	2.62	33.2
Presque Isle	850	5.20	2.62	27.7

7.26

18.70

MDOT No.:

Contractor:

---- Verify this number is 100%

SUPERIO	OR L S

Superior Materials, LLC 30701 W. 10 Mile Rd.

Suite 500 Farmington Hills, MI 48336

Sieve	CA	IA	2NS	% Passing	% Retained	% 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"	27.6	100.0	100.0	75.9	24.1	24.1	
3/4"	4.2	99.0	100.0	67.9	8.1	32.1	
1/2"	1.1	72.4	100.0	59.5	8.4	40.5	
3/8"	1.1	46.0	100.0	52.2	7.3	47.8	4
#4	1.1	9.2	96.9	40.8	11.4	59.2	9
#8	1.1	3.0	79.3	32.2	8.6	67.8	no
#16	1.1	2.2	62.9	25.6	6.6	74.4	,
#30	1.0	2.1	47.5	19.5	6.1	80.5	no
#50	1.0	2.0	26.3	11.2	8.3	88.8	*

2.0

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

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

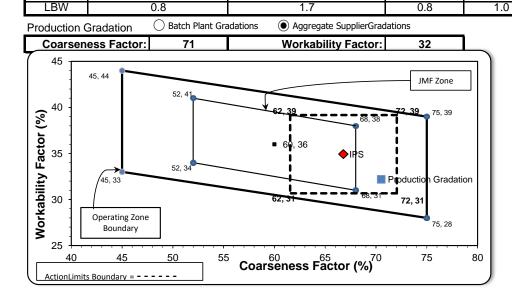
nom. max., #100 and #200 sieves.

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

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

96.5

99.0

7.6

Coars	eness Factor:	67	
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"	85.0	15.0	15.0
3/4"	72.3	12.7	27.7
1/2"	64.5	7.8	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3