Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

Contractor: _____

Sample Date: 9/30/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/1/2026 through 10/7/2026

1" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1580	9.41	2.69	51.6
IA	58-003	StoneCo	300	1.79	2.69	9.8
2NS	63-114	Highland	1180	7.11	2.66	38.6
		Total Wt	**3060**	**18.31**		100.0

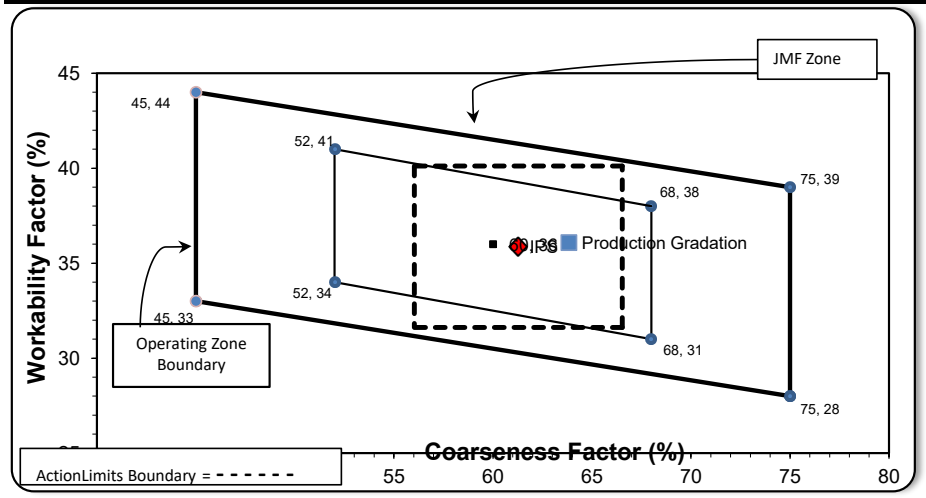
<----- Verify this number is 100%

Sieve	6AA	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"	99.2	100.0	100.0	99.6	0.4	0.4
3/4"	81.9	100.0	100.0	90.7	8.9	9.3
1/2"	42.1	81.5	100.0	68.3	22.4	31.7
3/8"	26.2	56.3	100.0	57.6	10.7	42.4
#4	4.7	15.4	98.3	41.8	15.8	58.2
#8	1.6	7.3	83.1	33.6	8.3	66.4
#16	1.1	4.1	65.5	26.2	7.4	73.8
#30	1.0	2.9	44.8	18.1	8.2	81.9
#50	0.9	2.4	19.1	8.1	10.0	91.9
#100	0.8	2.2	4.1	2.2	5.9	97.8
LBW	0.8	2.0	0.7	0.9	1.3	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.

Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

Coarseness Factor:	64	Workability Factor:	34	Adjusted WF: 36.1



Intial 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

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

PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Contractor: _____

Sample Date: 9/30/26

Concrete Grade: **DM-4500HP**

Dates Test Represents: 10/1/2026 through 10/7/2026

1" Slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1590	9.47	2.69	51.8
IA	58-003	StoneCo	300	1.79	2.69	9.8
2NS	63-114	Highland	1180	7.11	2.66	38.4
		Total Wt	**3070**	**18.37**		100.0

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

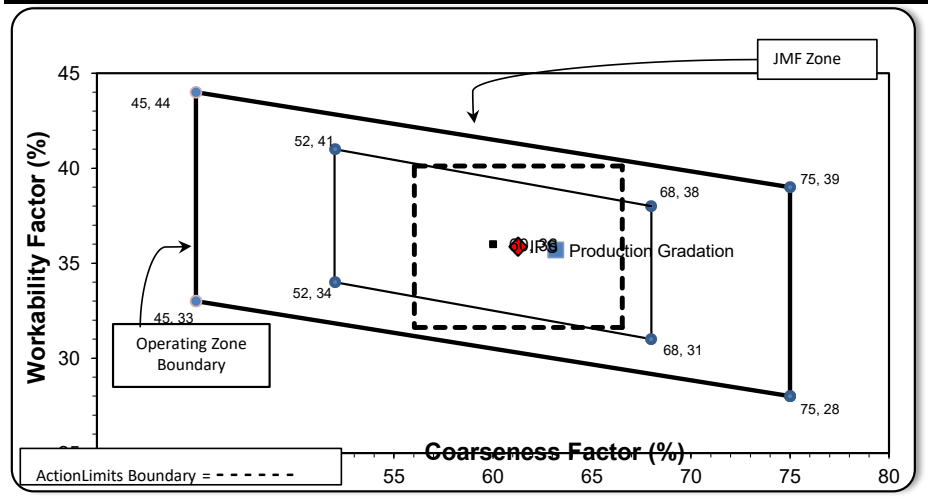
Sieve	6AA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	98.9	100.0	100.0	99.4	0.6	0.6
3/4"	83.5	100.0	100.0	91.5	8.0	8.5
1/2"	43.5	85.9	100.0	69.4	22.1	30.6
3/8"	24.4	68.8	100.0	57.8	11.6	42.2
#4	5.1	19.6	97.7	42.1	15.7	57.9
#8	2.3	4.2	82.2	33.2	8.9	66.8
#16	1.5	2.5	64.2	25.7	7.5	74.3
#30	1.2	2.1	44.1	17.8	7.9	82.2
#50	1.1	1.9	20.2	8.5	9.3	91.5
#100	1.0	1.8	3.9	2.2	6.3	97.8
LBW	0.9	1.7	0.7	0.9	1.3	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.

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

Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

Coarseness Factor:	63	Workability Factor:	33	Adjusted WF 35.7



Intial 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

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