# Aggregate Optimization Chart

Production Gradation Report

**PLANT #:** **P-2**

Contractor: _____

Sample Date: 6/6/26

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 6/7/2026 through 6/14/2026

1 inch slump

MDOT No.: _____

| Agg. Class | Pit # | Source | Weight (SSD) | ft³ | Specific Gravity | % Contribution |
|---|---|---|---|---|---|---|
| 6AA | 71-47 | Preque Isle | 1500 | 9.35 | 2.57 | 50.3 |
| 26A | 71-47 | Preque Isle | 400 | 2.49 | 2.57 | 13.4 |
| 2NS | 63-115 | Ray Rd | 1080 | 6.48 | 2.67 | 36.2 |
| | | **Total Wt** | **2980** | **18.33** | | 100.0 |

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

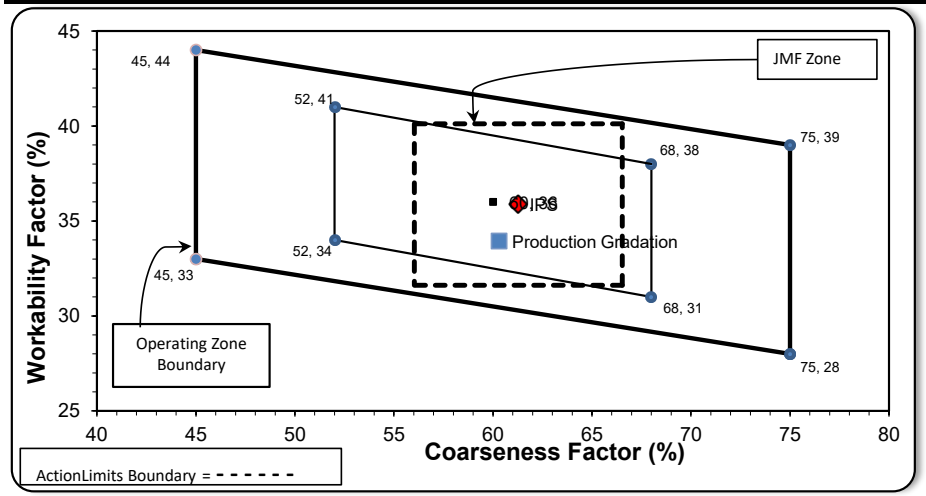

**Superior Materials, LLC**
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336


| 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" | 99.1 | 100.0 | 100.0 | 99.5 | 0.5 | 0.5 |
| 3/4" | 80.8 | 100.0 | 100.0 | 90.3 | 9.2 | 9.7 |
| 1/2" | 42.6 | 96.0 | 100.0 | 70.6 | 19.8 | 29.4 |
| 3/8" | 22.5 | 82.6 | 100.0 | 58.7 | 11.9 | 41.3 |
| #4 | 4.4 | 16.8 | 95.5 | 39.1 | 19.6 | 60.9 |
| #8 | 2.8 | 4.8 | 81.1 | 31.4 | 7.6 | 68.6 |
| #16 | 2.5 | 2.8 | 65.8 | 25.5 | 6.0 | 74.5 |
| #30 | 2.3 | 2.3 | 48.1 | 18.9 | 6.6 | 81.1 |
| #50 | 2.2 | 2.2 | 21.0 | 9.0 | 9.9 | 91.0 |
| #100 | 2.1 | 2.0 | 3.5 | 2.6 | 6.4 | 97.4 |
| LBW | 1.7 | 1.8 | 0.8 | 1.4 | 1.2 | 98.6 |

*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: | 60 | Workability Factor: | 31 | Adjusted WF 33.9 |
|---|---|---|---|---|




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 |

PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

# Daily Summary Report

| | | | |
|---|---|---|---|
| Date | Friday, June 6, 2026 | | |
| Sample Id | -1989638479 | -719224682 | -1989638480 |
| Plant | Hoover | Hoover | Hoover |
| Product | 1022<br>2NS GR | 1054<br>6AA LS PI | 1067<br>26A Mod LS |
| Specification | 2NS GR Spec | 6AA LS | 26A Mod LS Spec |
| Sample Type | QA | QA | QA |
| Time | 12:00 | 12:00 | 12:00 |
| 2" (50mm) | | 100.0 | 100.0 |
| 1 1/2" (37.5mm) | | 100.0 | 100.0 |
| 1" (25mm) | | 99.1 | 100.0 |
| 3/4" (19mm) | | 80.8 | 100.0 |
| 1/2" (12.5mm) | | 42.6 | 96.0 |
| 3/8" (9.5mm) | 100.0 | 22.5 | 82.6 |
| #4 (4.75mm) | 95.5 | 4.4 | 16.8 |
| #8 (2.36mm) | 81.1 | 2.8 | 4.8 |
| #16 (1.18mm) | 65.8 | 2.5 | 2.8 |
| #30 (.6mm) | 48.1 | 2.3 | 2.3 |
| #50 (.3mm) | 21.0 | 2.2 | 2.2 |
| #100 (.15mm) | 3.5 | 2.1 | 2.0 |
| #200 (75µm) | 1.0 | 1.91 | 1.9 |
| Pan | 0.0 | 0.00 | 0.0 |
| FM | 2.85 | | |
| Wash Loss (#200/75um) | 0.8 | 1.7 | 1.8 |
| Total Moisture | 4.09 | 2.79 | 2.29 |

# Daily Summary Report

Comments

Query Selections
Date Created 06/06/2026
Date Range 06/07/2026 - 06/14/2026
Plant Superior Hoover
Sample Type QA

# Aggregate Optimization Chart

Production Gradation Report

**PLANT #:** **P-2**

Contractor:

Sample Date: 6/6/26

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 6/7/2026 through 6/14/2026

5 inch slump

MDOT No.:

| Agg. Class | Pit # | Source | Weight (SSD) | ft³ | Specific Gravity | % Contribution |
|---|---|---|---|---|---|---|
| 6AA | 71-47 | Preque Isle | 1450 | 9.04 | 2.57 | 50.3 |
| 26A | 71-47 | Preque Isle | 350 | 2.18 | 2.57 | 12.2 |
| 2NS | 63-115 | Ray Rd | 1080 | 6.48 | 2.67 | 37.5 |
| | | **Total Wt** | **2880** | **17.71** | | 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" | 99.1 | 100.0 | 100.0 | 99.5 | 0.5 | 0.5 |
| 3/4" | 80.8 | 100.0 | 100.0 | 90.3 | 9.2 | 9.7 |
| 1/2" | 42.6 | 96.0 | 100.0 | 70.6 | 19.7 | 29.4 |
| 3/8" | 22.5 | 82.6 | 100.0 | 58.9 | 11.7 | 41.1 |
| #4 | 4.4 | 16.8 | 95.5 | 40.1 | 18.8 | 59.9 |
| #8 | 2.8 | 4.8 | 81.1 | 32.4 | 7.7 | 67.6 |
| #16 | 2.5 | 2.8 | 65.8 | 26.3 | 6.1 | 73.7 |
| #30 | 2.3 | 2.3 | 48.1 | 19.5 | 6.8 | 80.5 |
| #50 | 2.2 | 2.2 | 21.0 | 9.3 | 10.2 | 90.8 |
| #100 | 2.1 | 2.0 | 3.5 | 2.6 | 6.6 | 97.4 |
| LBW | 1.7 | 1.8 | 0.8 | 1.4 | 1.2 | 98.6 |

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Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

| Coarseness Factor: | 61 | Workability Factor: | 32 | Adjusted WF 34.9 |
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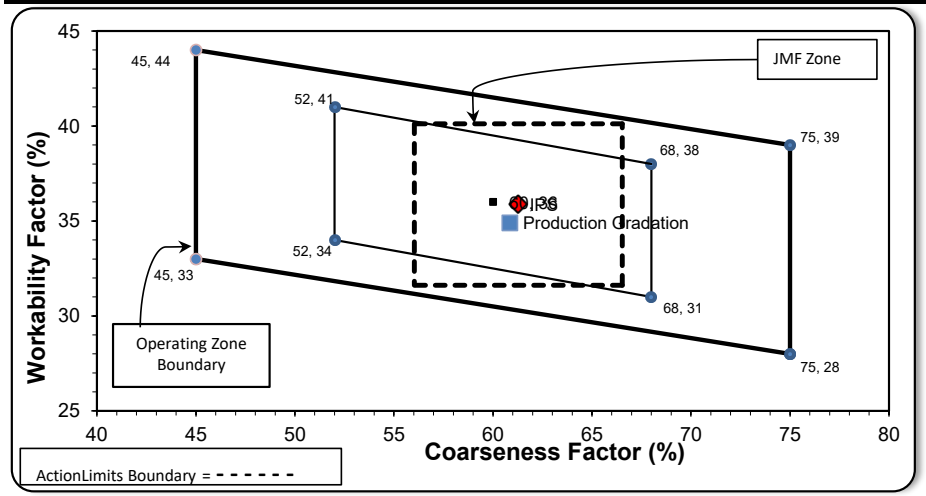


Intial Production Sample (IPS)

| Coarseness Factor: | 61 |
|---|---|
| Workability Factor: | 36 |

| Sieve | Cumulative % Passing | % Retained | Cumulative % Retained |
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| #100 (.15mm) | 3.5 | 2.1 | 2.0 |
| #200 (75µm) | 1.0 | 1.91 | 1.9 |
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Date Range 06/07/2026 - 06/14/2026
Plant Superior Hoover
Sample Type QA