

Aggregate Optimization Chart

PLANT #: p11

Contractor: _____

Sample Date: 5/19/25

Concrete Grade: DM, 4500HP

Dates Test Represents: 5/20/2025 through 5/26/2025

MDOT No.: _____

| Agg. Class | Pit # | Source | Weight (SSD) | ft ³ | Specific Gravity | % Contribution |
|-----------------|--------|--------------|--------------|-----------------|------------------|----------------|
| 6AA | 71-47 | Presque Isle | 1450 | 8.87 | 2.62 | 49.9 |
| 26A | 71-47 | Presque Isle | 305 | 1.87 | 2.62 | 10.5 |
| 2NS | 63-115 | Ray Rd | 1150 | 6.95 | 2.65 | 39.6 |
| Total Wt | | | 2905 | 17.69 | | 100.0 |

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



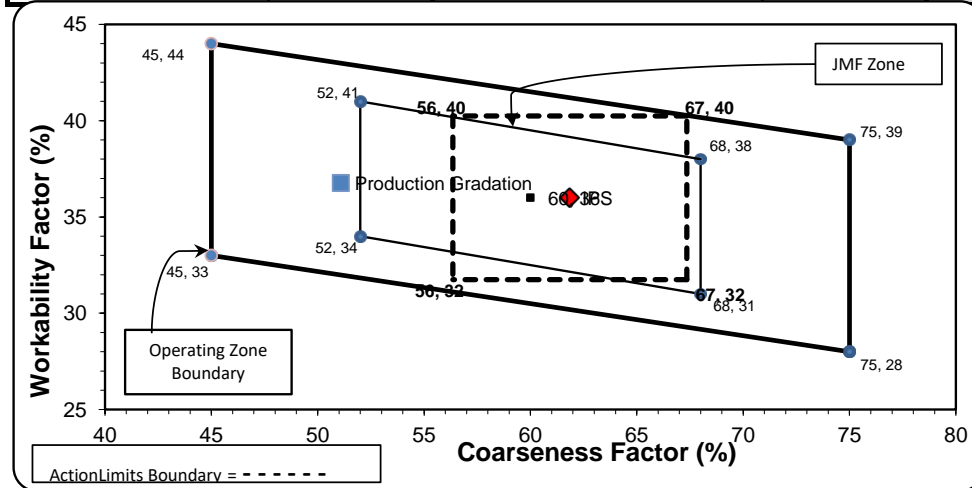
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

| 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" | 98.7 | 100.0 | 100.0 | 99.4 | 0.6 | 0.6 |
| 3/4" | 85.1 | 100.0 | 100.0 | 92.6 | 6.8 | 7.4 |
| 1/2" | 54.9 | 97.9 | 100.0 | 77.3 | 15.3 | 22.7 |
| 3/8" | 35.4 | 87.3 | 100.0 | 66.4 | 10.8 | 33.6 |
| #4 | 7.0 | 27.5 | 96.2 | 44.5 | 22.0 | 55.5 |
| #8 | 3.0 | 10.5 | 80.0 | 34.3 | 10.2 | 65.7 |
| #16 | 2.4 | 5.2 | 61.7 | 26.2 | 8.1 | 73.8 |
| #30 | 2.3 | 3.9 | 43.5 | 18.8 | 7.4 | 81.2 |
| #50 | 2.2 | 3.5 | 21.0 | 9.8 | 9.0 | 90.2 |
| #100 | 2.1 | 3.3 | 3.9 | 2.9 | 6.8 | 97.1 |
| LBW | 1.8 | 2.8 | 0.2 | 1.3 | 1.7 | 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.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations Adjusted WF Initial Production Sample (IPS)

| | | | | | | | |
|---------------------------|-----------|----------------------------|-----------|--------------------|-------------|---------------------------|-----------|
| Coarseness Factor: | 51 | Workability Factor: | 34 | Adjusted WF | 36.8 | Coarseness Factor: | 62 |
|---------------------------|-----------|----------------------------|-----------|--------------------|-------------|---------------------------|-----------|



| 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" | 100.0 | 0.0 | 0.0 |
| 3/4" | 95.0 | 5.0 | 5.0 |
| 1/2" | 72.3 | 22.8 | 27.7 |
| 3/8" | 60.4 | 11.8 | 39.6 |
| #4 | 42.6 | 17.8 | 57.4 |
| #8 | 36.0 | 6.6 | 64.0 |
| #16 | 29.5 | 6.5 | 70.5 |
| #30 | 20.3 | 9.2 | 79.7 |
| #50 | 9.5 | 10.8 | 90.5 |
| #100 | 3.4 | 6.1 | 96.6 |
| LBW | 1.3 | 2.1 | 98.7 |

PREPARED BY:
 SM, LLC Technical Service

Approved By:

Daily Summary Report

Date Tuesday, May 20, 2025

| Sample Id | -881357028 | -1989639312 | -674926996 |
|-----------------------|-------------------------|-------------------------|-------------------------|
| Plant | S000 Superior Onsite | S000 Superior Onsite | S000 Superior Onsite |
| Product | 1051 6AA LS | 1067 26A Mod LS | 1022 2NS GR |
| Specification | | 26A Mod LS Spec | 2NS GR Spec |
| Sample Type | QA | QA | QA |
| 2" (50mm) | 100.0 | 100.0 | |
| 1 1/2" (37.5mm) | 100.0 | 100.0 | |
| 1" (25mm) | 98.7 | 100.0 | |
| 3/4" (19mm) | 85.1 | 100.0 | |
| 1/2" (12.5mm) | 54.9 | 97.9 | |
| 3/8" (9.5mm) | 35.4 | 87.3 | 100.0 |
| #4 (4.75mm) | 7.0 | 27.5 | 96.2 |
| #8 (2.36mm) | 3.0 | 10.5 | 80.0 |
| #16 (1.18mm) | 2.4 | 5.2 | 61.7 |
| #30 (.6mm) | 2.3 | 3.9 | 43.5 |
| #50 (.3mm) | 2.2 | 3.5 | 21.0 |
| #100 (.15mm) | 2.1 | 3.3 | 3.9 |
| #200 (75µm) | 1.93 | 3.0 | 0.3 |
| Pan | 0.00 | 0.0 | 0.0 |
| FM | | | 2.94 |
| -#200 (75um) | | | 0.3 |
| Wash Loss (#200/75um) | 1.8 | 2.8 | 0.2 |
| Total Moisture | 2.9 | 3.4 | 3.9 |