

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-102

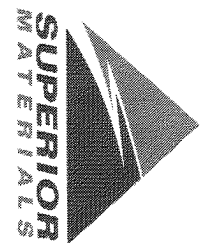
Sample Date: 8/26/24

Dates Test Represents: 8/27/2024 through 9/2/2024

Concrete Grade: DM, 4500HP

Contractor: _____

MDOT No.: _____



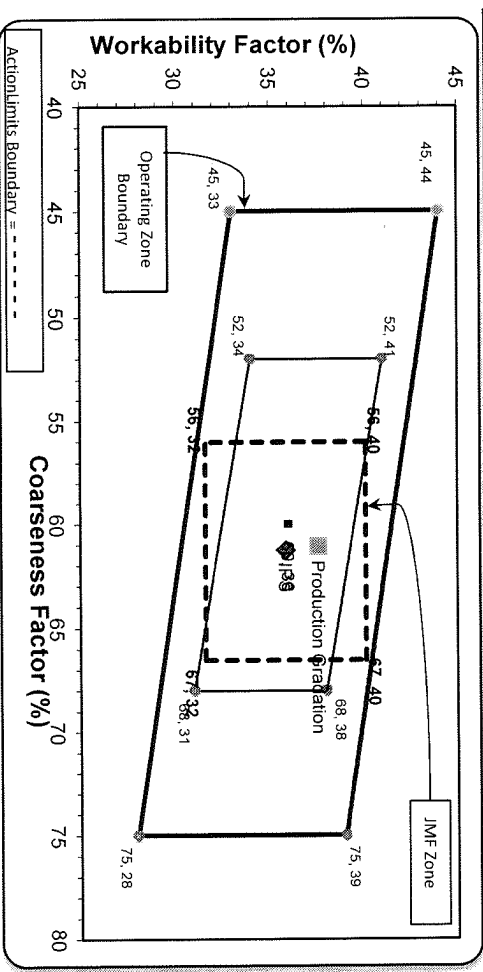
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

| Agg. Class | Pit # | Source | Weight (ssd) | ft ³ | Specific Gravity | Contribution % |
|-----------------|--------|----------|--------------|-----------------|------------------|----------------|
| 6AA | 58-003 | Stonoco | 1475 | 8.79 | 2.69 | 50.0 |
| 26A | 58-003 | Stonoco | 325 | 1.94 | 2.69 | 11.0 |
| 2NS | 63-114 | Highland | 1150 | 6.95 | 2.65 | 39.0 |
| Total Wt | | | 2950 | 17.68 | | 100.0 |

| 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" | 99.3 | 100.0 | 100.0 | 99.7 | 0.3 | 0.3 |
| 3/4" | 82.5 | 100.0 | 100.0 | 91.3 | 8.4 | 8.8 |
| 1/2" | 42.5 | 99.9 | 100.0 | 99.9 | 20.0 | 28.8 |
| 3/8" | 22.3 | 92.7 | 100.0 | 60.3 | 10.9 | 39.7 |
| #4 | 5.0 | 27.8 | 98.9 | 44.1 | 16.2 | 55.9 |
| #8 | 2.4 | 8.3 | 84.6 | 35.1 | 9.0 | 64.9 |
| #16 | 1.9 | 3.6 | 68.3 | 28.0 | 7.1 | 72.0 |
| #30 | 1.8 | 2.4 | 50.7 | 20.9 | 7.0 | 79.1 |
| #50 | 1.7 | 2.1 | 23.5 | 10.2 | 10.7 | 89.8 |
| #100 | 1.6 | 2.0 | 5.0 | 3.0 | 7.3 | 97.0 |
| LBW | 1.5 | 1.9 | 0.6 | 1.2 | 1.8 | 98.8 |

*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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

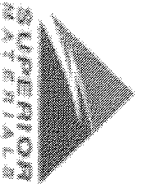
| Production Gradation | Batch Plant Gradations | Aggregate Supplier Gradations | Adjusted WF |
|--|--|---|-------------|
| <input checked="" type="radio"/> Coarseness Factor: 61 | <input type="radio"/> Workability Factor: 35 | <input type="radio"/> Initial Production Sample (IPS) | 37.6 |



| 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: _____



Daily Summary Report

Date Monday, August 26, 2024

| Sample Id | -1989619310 | -1989642478 | -674980654 |
|-----------------------|-----------------------|-----------------------|-----------------------|
| Plant | S102 Superior Novi | S102 Superior Novi | S102 Superior Novi |
| Product | 1067 26A Mod LS | 1051 6AA LS | 1022 2NS GR |
| Specification | 26A Mod LS Spec | 6AA LS | 2NS GR Spec |
| Sample Type | QA | QA | QA |
| Time | 10:00 | 13:20 | 13:32 |
| 2" (50mm) | 100.0 | 100.0 | 100.0 |
| 1 1/2" (37.5mm) | 100.0 | 100.0 | 98.9 |
| 1" (25mm) | 100.0 | 99.3 | 84.6 |
| 3/4" (19mm) | 100.0 | 82.5 | 68.3 |
| 1/2" (12.5mm) | 99.9 | 42.5 | 50.7 |
| 3/8" (9.5mm) | 92.7 | 22.3 | 23.5 |
| #4 (4.75mm) | 27.8 | 5.0 | 5.0 |
| #8 (2.36mm) | 8.3 | 2.4 | 0.8 |
| #16 (1.18mm) | 3.6 | 1.9 | 0.0 |
| #30 (.6mm) | 2.4 | 1.8 | 0.0 |
| #50 (.3mm) | 2.1 | 1.7 | 0.6 |
| #100 (.15mm) | 2.0 | 1.6 | 0.6 |
| #200 (75µm) | 2.0 | 1.56 | 0.6 |
| Pan | 0.0 | 0.00 | 2.69 |
| FM | | | 0.6 |
| Wash Loss (#200/75µm) | 1.9 | 1.5 | 3.42 |
| Total Moisture | 2.86 | 2.20 | |