

Aggregate Optimization Chart

MIX ID'S: DDS257E7 and DDS257E8

Production Gradation Report

PLANT #: **P-102**

Sample Date: 4/16/18

Concrete Grade: **S2M**

Contractor: _____

Dates Test Represents: 4/17/2018 to 4/23/2018

MDOT No.: _____

| Agg. Class | Pit # | Source | Weight (SSD) | ft ³ | Specific Gravity | % Contribution |
|-----------------|--------|---------|--------------|-----------------|------------------|----------------|
| 6AA | 58-003 | Stoneco | 1550 | 9.23 | 2.69 | 49.1 |
| 26A | 58-003 | Stoneco | 350 | 2.09 | 2.69 | 11.1 |
| 2NS | 38-046 | Chelsea | 1260 | 7.62 | 2.65 | 39.9 |
| Total Wt | | | 3160 | 18.94 | | 100.0 |

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



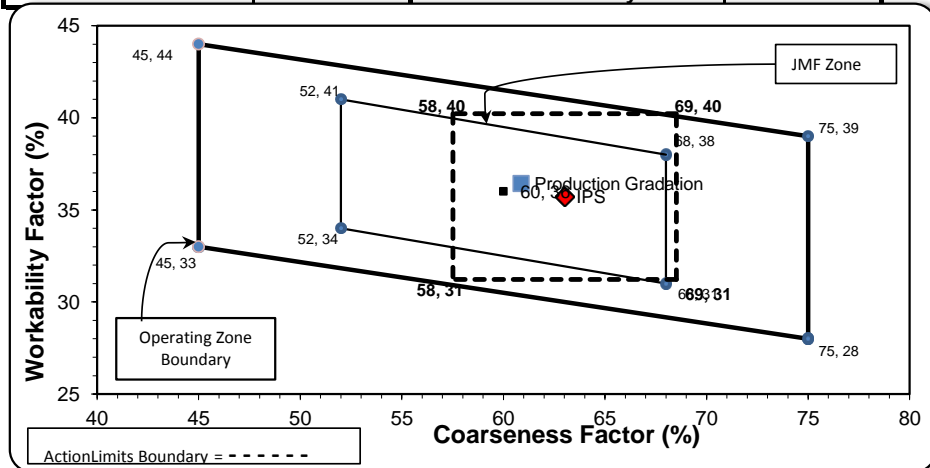
Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

| 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" | 99.9 | 100.0 | 100.0 | 100.0 | 0.0 | 0.0 |
| 3/4" | 86.5 | 100.0 | 100.0 | 93.4 | 6.6 | 6.6 |
| 1/2" | 45.0 | 99.8 | 100.0 | 73.0 | 20.4 | 27.0 |
| 3/8" | 23.6 | 89.0 | 100.0 | 61.3 | 11.7 | 38.7 |
| #4 | 4.3 | 21.4 | 99.0 | 44.0 | 17.4 | 56.0 |
| #8 | 2.2 | 6.0 | 87.0 | 36.4 | 7.5 | 63.6 |
| #16 | 2.3 | 2.4 | 67.0 | 28.1 | 8.3 | 71.9 |
| #30 | 2.0 | 1.8 | 47.0 | 19.9 | 8.2 | 80.1 |
| #50 | 1.8 | 1.4 | 24.0 | 10.6 | 9.3 | 89.4 |
| #100 | 1.7 | 1.4 | 1.0 | 1.4 | 9.2 | 98.6 |
| LBW | 1.2 | 1.2 | 0.8 | 1.0 | 0.3 | 99.0 |

*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.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

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



Initial Production Sample (IPS)

| Sieve | Cumulative % Passing | % Retained | Cumulative % Retained |
|-------|----------------------|------------|-----------------------|
| 2" | 100.0 | 0.0 | 0.0 |
| 1.5" | 100.0 | 0.0 | 0.0 |
| 1" | 99.2 | 0.8 | 0.8 |
| 3/4" | 90.9 | 8.3 | 9.1 |
| 1/2" | 71.3 | 19.6 | 28.7 |
| 3/8" | 59.5 | 11.8 | 40.5 |
| #4 | 43.8 | 15.7 | 56.2 |
| #8 | 35.7 | 8.1 | 64.3 |
| #16 | 27.0 | 8.7 | 73.0 |
| #30 | 18.6 | 8.4 | 81.4 |
| #50 | 6.8 | 11.8 | 93.2 |
| #100 | 1.4 | 5.4 | 98.6 |
| LBW | 0.6 | 0.8 | 99.4 |

PREPARED BY:

Approved By: