

Concrete Mixture Analysis Worksheet

Project Name: Miscellaneous Mix Designs
 Client Name: Daytona Redi Mix
 MDOT Project #: Various
 Maximum Aggregate Size (inches): 1.5

Date: 6/25/2024
 CT Project #: 230408
 Mix ID #: 3500HP (Slag - Mid-Range)

| MATERIALS | | | | |
|--------------|-------------------------------|-----------------|-------------|---------------|
| Type | Source | Class | Spec. Grav. | F/T Dialation |
| Coarse | Manitoulin (MDOT 95-0005CA) | 6AA | 2.82 | 0.001 |
| Intermediate | Port Inland (MDOT 74-0005CA) | 26A | 2.68 | 0.036 |
| | | | 1.00 | |
| Fine | Krake-Measel (MDOT 44-0051SG) | 2NS | 2.68 | |
| Cement | Ash Grove - Missisauga | Type IL | 3.10 | |
| GGBFS | Ash Grove - Detroit | 100 | 2.91 | |
| ADMIXTURES | | | | |
| Type | Supplier | Dosage (oz/cwt) | | |
| SA-50 | MAPEI | 0.8 | | |
| Dynamon SX | MAPEI | 5 | | |

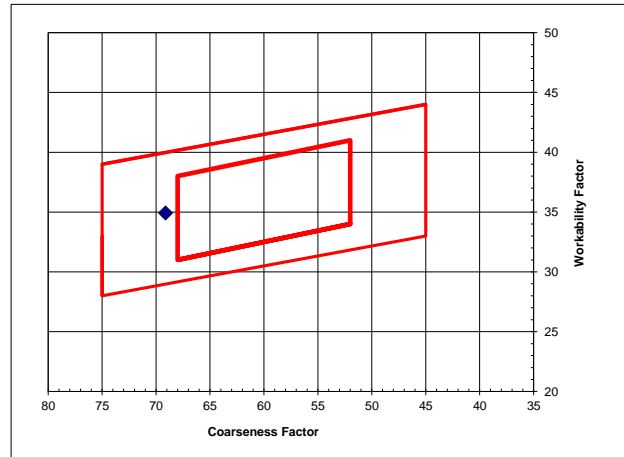
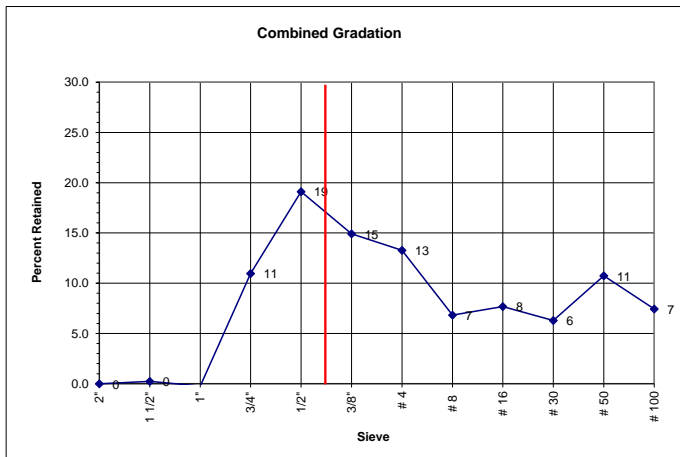
| PROPORTIONS (SSD) | | | | |
|-----------------------------------|----------|-----------|----------------------|---------|
| Type | Wt. lbs. | Sp. Grav. | Vol. ft ³ | % Vol. |
| Cement | 395 | 3.1 | 2.04 | |
| GGBFS | 131 | 2.91 | 0.72 | |
| Coarse | 1910 | 2.82 | 10.85 | 57.71 |
| Intermediate | 100 | 2.68 | 0.60 | 3.18 |
| | | 1.00 | 0.00 | 0.00 |
| Fine | 1230 | 2.68 | 7.36 | 39.11 |
| 27.03 | | | | |
| Water | 231 | 1 | 3.70 | |
| Air, % | 6.5 | | 1.76 | |
| Total Cementitious: | | 526 | lbs. or | 5.6 bag |
| Water/Cement Ratio: | | 0.44 | | |
| Percent Cementitious Replacement: | | 25% | | |

| | GRADATIONS | | | | | | | | Gradation Date: <u>6/25/2024</u> | | | |
|------------------|--------------|-------|--------------|-------|--------|-------|--------|-------|----------------------------------|------------------|-------------------|------------------|
| | Coarse | | Intermediate | | 0 | | Fine | | | | | |
| | SSD wt., lbs | 1910 | 100 | 0 | 1230 | | | | | | | |
| Abs. Volume | 10.85 | 0.60 | 0.00 | 7.36 | | | | | | | | |
| Aggregate % Vol. | 57.7 | 3.2 | 0.0 | 39.1 | | | | | | | | |
| Sieves | % Pass | % Mix | % Pass | % Mix | % Pass | % Mix | % Pass | % Mix | Total % Passing | % Cumm. Retained | Retained Sieve, % | Retained Spec. % |
| 2" | 100 | 57.7 | 100 | 3.2 | 0.0 | 0.0 | 100 | 39.1 | 100.0 | 0.0 | 0.0 | |
| 1 1/2" | 100 | 57.5 | 100 | 3.2 | 0.0 | 0.0 | 100 | 39.1 | 99.8 | 0.2 | 0.2 | |
| 1" | 100 | 57.7 | 100 | 3.2 | 0.0 | 0.0 | 100 | 39.1 | 100.0 | 0.0 | -0.2 | |
| 3/4" | 81 | 46.7 | 100 | 3.2 | 0.0 | 0.0 | 100 | 39.1 | 89.0 | 11.0 | 11.0 | |
| 1/2" | 48 | 27.7 | 98 | 3.1 | 0.0 | 0.0 | 100 | 39.1 | 69.9 | 30.1 | 19.1 | |
| 3/8" | 23 | 13.3 | 83 | 2.6 | 0.0 | 0.0 | 100 | 39.1 | 55.0 | 45.0 | 14.9 | |
| # 4 | 5 | 2.9 | 17 | 0.5 | 0.0 | 0.0 | 98 | 38.3 | 41.8 | 58.2 | 13.3 | |
| # 8 | 4 | 2.3 | 5 | 0.2 | 0.0 | 0.0 | 83 | 32.5 | 34.9 | 65.1 | 6.8 | |
| # 16 | 3 | 1.7 | 3 | 0.1 | 0.0 | 0.0 | 65 | 25.4 | 27.2 | 72.8 | 7.7 | |
| # 30 | 3 | 1.7 | 2 | 0.1 | 0.0 | 0.0 | 49 | 19.2 | 21.0 | 79.0 | 6.3 | |
| # 50 | 2 | 1.2 | 2 | 0.1 | 0.0 | 0.0 | 23 | 9.0 | 10.2 | 89.8 | 10.7 | |
| # 100 | 2 | 1.2 | 2 | 0.1 | 0.0 | 0.0 | 4 | 1.6 | 2.8 | 97.2 | 7.4 | |
| # 200 | 2 | 1.2 | 1 | 0.0 | 0.0 | 0.0 | 1 | 0.4 | 1.6 | 98.4 | 1.2 | |

Fine Aggregate Fineness Modulus: 2.78 FM

Coarseness Factor (x-axis): 69
((cumm. Ret 3/8 / cumm. Ret #8) x 100)

Workability Factor (y-axis): 35
(Pass #8 + Adjustment Factor)



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