

Concrete Mixture Analysis Worksheet

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

Date: 6/11/2024
 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 II	3.10	
GGBFS	Ash Grove - Detroit	100	2.91	
ADMIXTURES				
Type	Supplier	Dosage (oz/cwt)		
SA-50	MAPEI	0.8		
Dynamon SX	MAPEI	5		

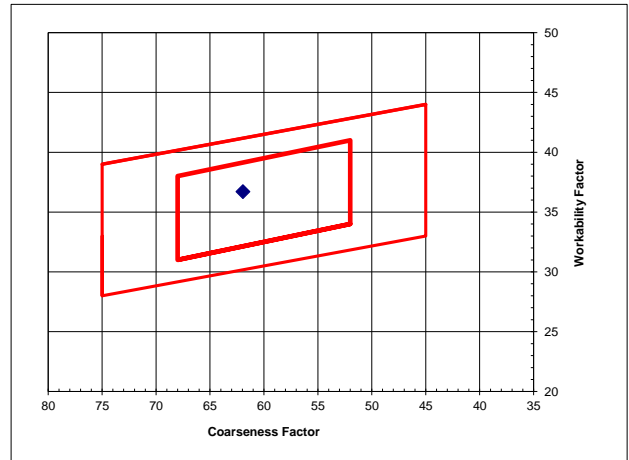
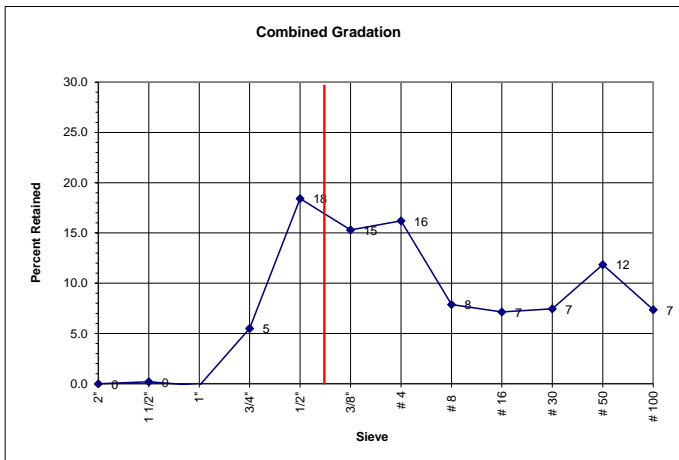
PROPORTIONS (SSD)				
Type	Wt. lbs.	Sp. Grav.	Vol. ft ³	% Vol.
Cement	395	3.1	2.04	
GGBFS	131	2.91	0.72	
Coarse	1650	2.82	9.38	49.89
Intermediate	290	2.68	1.73	9.23
		1.00	0.00	0.00
Fine	1285	2.68	7.68	40.88
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Water	231	1	3.70	
Air, %	6.5		1.76	
27.02				
Total Cementitious:		526	lbs. or	5.6 bag
Water/Cement Ratio:		0.44		
Percent Cementitious Replacement:		25%		

SSD wt., lbs	GRADATIONS								Gradation Date: <u>6/11/2024</u>			
	Coarse		Intermediate		0		Fine		Total % Passing	% Cumm. Retained	Retained Sieve, %	Retained Spec. %
	Abs. Volume	Aggregate % Vol.	Abs. Volume	Aggregate % Vol.	Abs. Volume	Aggregate % Vol.	Abs. Volume	Aggregate % Vol.				
	1650	49.9	290	9.2	0	0.0	1285	40.9				
Sieves	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix				
2"	100	49.9	100	9.2	0.0	0.0	100	40.9	100.0	0.0	0.0	
1 1/2"	100	49.7	100	9.2	0.0	0.0	100	40.9	99.8	0.2	0.2	
1"	100	49.9	100	9.2	0.0	0.0	100	40.9	100.0	0.0	-0.2	
3/4"	89	44.4	100	9.2	0.0	0.0	100	40.9	94.5	5.5	5.5	
1/2"	53	26.4	95	8.8	0.0	0.0	100	40.9	76.1	23.9	18.4	
3/8"	24	12.0	86	7.9	0.0	0.0	100	40.9	60.8	39.2	15.3	
# 4	4	2.0	23	2.1	0.0	0.0	99	40.5	44.6	55.4	16.2	
# 8	2	1.0	6	0.6	0.0	0.0	86	35.2	36.7	63.3	7.9	
# 16	2	1.0	4	0.4	0.0	0.0	69	28.2	29.6	70.4	7.1	
# 30	2	1.0	3	0.3	0.0	0.0	51	20.9	22.1	77.9	7.5	
# 50	2	1.0	3	0.3	0.0	0.0	22	9.0	10.3	89.7	11.9	
# 100	2	1.0	3	0.3	0.0	0.0	4	1.6	2.9	97.1	7.4	
# 200	2	0.9	3	0.2	0.0	0.0	1	0.5	1.7	98.3	1.2	

Fine Aggregate Fineness Modulus: 2.69 FM

Coarseness Factor (x-axis): 62
 ((cumm. Ret 3/8 / cumm. Ret #8) x 100)

Workability Factor (y-axis): 37
 (Pass #8 + Adjustment Factor)



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