

Concrete Mixture Analysis Worksheet

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

Date: 7/16/2024
 CT Project #: 230408
 Mix ID #: 4500HP (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 - Missisauqua	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		

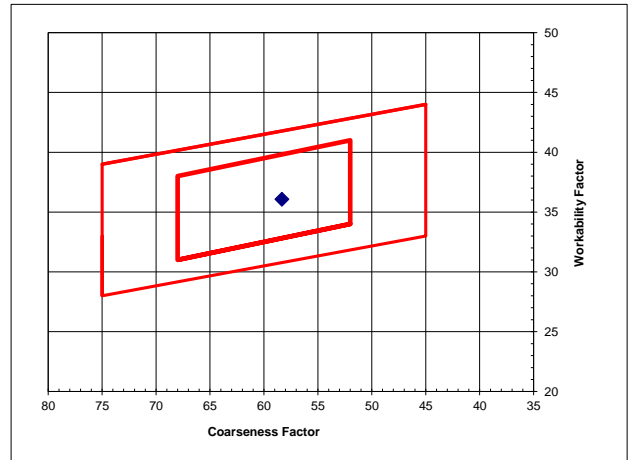
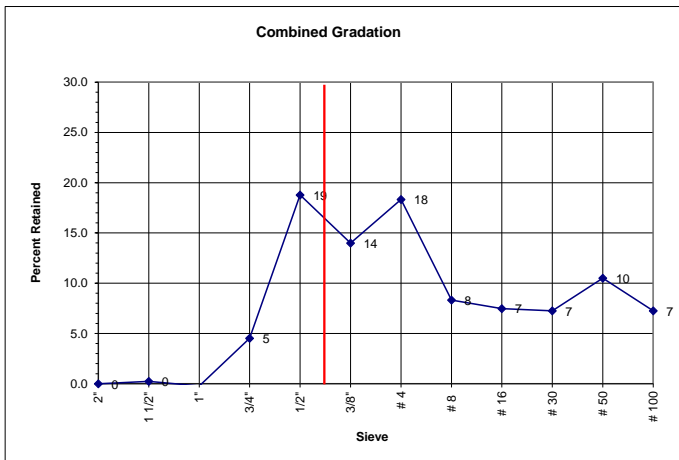
PROPORTIONS (SSD)				
Type	Wt. lbs.	Sp. Grav.	Vol. ft ³	% Vol.
Cement	423	3.1	2.19	
GGBFS	141	2.91	0.78	
Coarse	1840	2.82	10.46	56.52
Intermediate	100	2.68	0.60	3.23
		1.00	0.00	0.00
Fine	1245	2.68	7.44	40.24
Water	237	1	3.80	
Air, %	6.5		1.76	
				27.02
Total Cementitious:		564	lbs. or	6.0 bag
Water/Cement Ratio:		0.44		
Percent Cementitious Replacement:		25%		

SSD wt., lbs	GRADATIONS								Gradation Date: <u>7/16/2024</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.				
	1840	56.5	100	3.2	0	0.00	1245	40.2				
Sieves	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix				
2"	100	56.5	100	3.2	0.0	0.0	100	40.2	100.0	0.0	0.0	
1 1/2"	100	56.3	100	3.2	0.0	0.0	100	40.2	99.8	0.2	0.2	
1"	100	56.5	100	3.2	0.0	0.0	100	40.2	100.0	0.0	-0.2	
3/4"	92	52.0	100	3.2	0.0	0.0	100	40.2	95.5	4.5	4.5	
1/2"	59	33.3	96	3.1	0.0	0.0	100	40.2	76.7	23.3	18.8	
3/8"	35	19.8	83	2.7	0.0	0.0	100	40.2	62.7	37.3	14.0	
# 4	7	4.0	18	0.6	0.0	0.0	99	39.8	44.4	55.6	18.3	
# 8	3	1.7	5	0.2	0.0	0.0	85	34.2	36.1	63.9	8.3	
# 16	2	1.1	3	0.1	0.0	0.0	68	27.4	28.6	71.4	7.5	
# 30	2	1.1	3	0.1	0.0	0.0	50	20.1	21.3	78.7	7.2	
# 50	2	1.1	2	0.1	0.0	0.0	24	9.7	10.9	89.1	10.5	
# 100	2	1.1	2	0.1	0.0	0.0	6	2.4	3.6	96.4	7.2	
# 200	2	1.0	2	0.1	0.0	0.0	2	0.8	1.9	98.1	1.7	

Fine Aggregate Fineness Modulus: 2.68 FM

Coarseness Factor (x-axis): 58
 ((cumm. Ret 3/8 / cumm. Ret #8) x 100)

Workability Factor (y-axis): 36
 (Pass #8 + Adjustment Factor)



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