

## 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 #: 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 - 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		

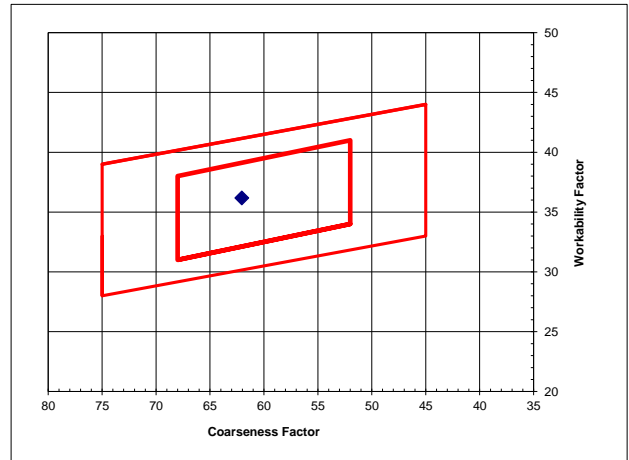
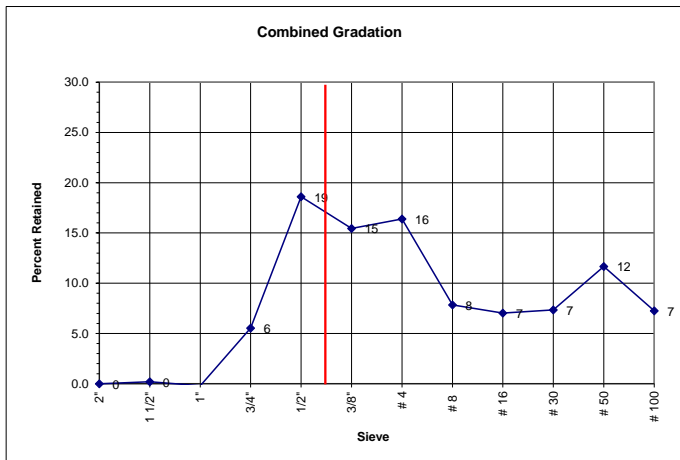
PROPORTIONS (SSD)				
Type	Wt. lbs.	Sp. Grav.	Vol. ft <sup>3</sup>	% Vol.
Cement	423	3.1	2.19	
GGBFS	141	2.91	0.78	
Coarse	1640	2.82	9.32	50.38
Intermediate	290	2.68	1.73	9.37
		1.00	0.00	0.00
Fine	1245	2.68	7.44	40.24
27.02				
Water	237	1	3.80	
Air, %	6.5		1.76	
Total Cementitious:		564	lbs. or	6.0 bag
Water/Cement Ratio:		0.44		
Percent Cementitious Replacement:		25%		

	GRADATIONS								Gradation Date: <u>6/11/2024</u>			
	Coarse		Intermediate		0		Fine					
	SSD wt., lbs	1640	290	0	1245					Total % Passing	% Cumm. Retained	Retained Sieve, %
Abs. Volume	9.32	1.73	0.00	7.44								
Aggregate % Vol.	50.4	9.4	0.0	40.2								
Sieves	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix	% Pass	% Mix				
2"	100	50.4	100	9.4	0.0	0.0	100	40.2	100.0	0.0	0.0	
1 1/2"	100	50.2	100	9.4	0.0	0.0	100	40.2	99.8	0.2	0.2	
1"	100	50.4	100	9.4	0.0	0.0	100	40.2	100.0	0.0	-0.2	
3/4"	89	44.8	100	9.4	0.0	0.0	100	40.2	94.5	5.5	5.5	
1/2"	53	26.7	95	8.9	0.0	0.0	100	40.2	75.9	24.1	18.6	
3/8"	24	12.1	86	8.1	0.0	0.0	100	40.2	60.4	39.6	15.5	
# 4	4	2.0	23	2.2	0.0	0.0	99	39.8	44.0	56.0	16.4	
# 8	2	1.0	6	0.6	0.0	0.0	86	34.6	36.2	63.8	7.8	
# 16	2	1.0	4	0.4	0.0	0.0	69	27.8	29.2	70.8	7.0	
# 30	2	1.0	3	0.3	0.0	0.0	51	20.5	21.8	78.2	7.3	
# 50	2	1.0	3	0.3	0.0	0.0	22	8.9	10.1	89.9	11.7	
# 100	2	1.0	3	0.3	0.0	0.0	4	1.6	2.9	97.1	7.2	
# 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): 36  
(Pass #8 + Adjustment Factor)



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