



AGGREGATE SUBMITTAL

Report of Physical Properties

GRP Material Description: UTBC UDOT 1.5

Report Date: February 6, 2023

GRP Material Code: GRAD

Reviewed by: Dan McDaniel

Source Location/Code: 588 - Morgan

Report No. 588GRAD00123

TEST RESULTS					SIEVE ANALYSIS		
Standard	PHYSICAL PROPERTIES		Result	Test Source	ASTM C136 AASHTO T27		
ASTM C 29 AASHTO T19	Unit Weight	Unit Weight, lbs./cu.ft. =	130.0		Sieve Size	% Passing	Spec.
		Voids, % =	31		450 mm (18")		
		<input type="checkbox"/> Jigged <input type="checkbox"/> Loose	R		375 mm (15")		
ASTM D1557 AASHTO T180	Modified Proctor	Max. density, lbs./cu.ft. =	144.7		300 mm (12")		
		Optimum Moisture, % =	5.8		250 mm (10")		
ASTM D698 AASHTO T99	Standard Proctor	Max. density, lbs./cu.ft. =	142.3		225 mm (9")		
		Optimum Moisture, % =	6.4		200 mm (8")		
ASTM D4318 AASHTO T89/90	Liquid Limit Plastic Limit Plasticity Index	Liquid Limit =	0		150 mm (6")		
		Plastic Limit =	0		125 mm (5")		
		Plasticity Index =	NP		100 mm (4")		
ASTM C131 AASHTO T96	L.A. Abrasion	Small Coarse Loss, % =			75.0 mm (3")		
		Grading/Revolutions, =			63.0 mm (2-1/2")		
ASTM C535	L.A. Abrasion	Large Coarse Loss, % =	26		50.0 mm (2")		
		Grading/Revolutions, =	B/500		37.5 mm (1-1/2")	100	
ASTM C 128 AASHTO T84	Fine Specific Gravity & Absorption	Bulk Specific Gravity (dry) =	2.728		25.0 mm (1")	95	
		Bulk Specific Gravity, SSD =	2.748		19.0 mm (3/4")	85	
		Apparent Specific Gravity =	2.784		12.5 mm (1/2")	64	
		Absorption, % =	0.7		9.5 mm (3/8")	52	
ASTM C 127/128 AASHTO T84/85	Coarse/Fine Specific Gravity & Absorption	Bulk Specific Gravity (dry) =			6.3 mm (1/4")		
		Bulk Specific Gravity, SSD =			4.75 mm (No.4)	40	
		Apparent Specific Gravity =			2.36 mm (No.8)		
		Absorption, % =			2.00 mm (No.10)		
ASTM D2419 AASHTO T176	Sand Equivalent	Sand Equivalent, % =	28		1.18 mm (No.16)	25	
					0.600 mm (No.30)		
ASTM C 88 AASHTO T104	Soundness	Coarse Soundness Loss, % =			0.425 mm (No.40)		
		Sodium No. of Cycles =			0.300 mm (No.50)	17	
	Soundness	Fine Soundness Loss, % =	3		0.180 mm (No.80)		
		Magnesium No. of Cycles =	5		0.150 mm (No.100)		
ASTM C 1252 AASHTO T304	Fine Aggregate Angularity	Uncompacted Voids, % =			0.075 mm (No.200)	9.8	
		Method C (as received material)			ASTM D422		
ASTM C40 AASHTO T21	Organic Impurities	Coarse Aggregate, % =			Hydrometer =		
		Fine Aggregate, % =		Lighter Plate #1	ASTM C566 AASHTO T255		
ASTM C142 AASHTO T112	Clay / Friable Particles	Coarse Aggregate, % =			Moisture Content, % =		
		Fine Aggregate, % =	0		ASTM C136 AASHTO T27		
ASTM C123 AASHTO T113	Lightweight Pieces	Coarse Aggregate, % =			Fineness Modulus (FM) =		
		Fine Aggregate, % =			AASHTO M145		
ASTM D1883 AASHTO T193	CBR	Surcharge = 10 lbs CBR @ 0.1" =	88		Classification of Soils =	A1A	
		Swell% = 0.0% CBR @ 0.2" =	109		ASTM D4791 Ratio =		
ASTM D5821	Fractured Face	1 or 2 Faces =	1 face = 100		Flat & Elongated =		
		Fractured Face, % =	2 face = 99		PH		
ASTM D2487	Soil Classification	Group Symbol =					
		Group Name =					
ASTM D2488	Soil Description & Identification	Group Symbol =					
		Group Name =					