



**AGGREGATE SUBMITTAL**

**Report of Physical Properties and Aggregate Target Submittal**

GRP Material Description: UTBC UDOT / 1.5"APWA

Report Date: May 19, 2023

GRP Material Code: GRAD

Reviewed by: Dan McDaniel

Source Location/Code: Hansen Pit North / 527

Report No. 527GRAD00323

TEST RESULTS				
Standard	PHYSICAL PROPERTIES		Result	Test Spec.
ASTM C 29 AASHTO T19	Unit Weight	Unit Weight, lbs./cu.ft. =	<b>119.0</b>	
		Voids, % =	<b>24</b>	
		<input type="checkbox"/> Jigged <input type="checkbox"/> Loose <input checked="" type="checkbox"/> Rodded		
ASTM D1557 AASHTO T180	Modified Proctor	Max. density, lbs./cu.ft. =	<b>137.0</b>	
		Optimum Moisture, % =	<b>6</b>	
ASTM D698 AASHTO T99	Standard Proctor	Max. density, lbs./cu.ft. =	<b>131.2</b>	
		Optimum Moisture, % =	<b>7.2</b>	
ASTM D4318 AASHTO T89/90	Liquid Limit Plastic Limit Plasticity Index	Liquid Limit=	<b>0</b>	
		Plastic Limit=	<b>0</b>	
		Plasticity Index=	<b>NP</b>	
ASTM C131 AASHTO T96	L.A. Abrasion	Small Coarse Loss, % =	<b>27</b>	
		Grading/Revolutions, =	<b>B/500</b>	
ASTM C535	L.A. Abrasion	Large Coarse Loss, % =		
		Grading/Revolutions, =		
ASTM C 128/127 AASHTO T84/85	Combined Specific Gravity & Absorption	Bulk Specific Gravity (dry) =	<b>2.534</b>	
		Bulk Specific Gravity, SSD =	<b>2.564</b>	
		Apparent Specific Gravity =	<b>2.615</b>	
		Absorption, % =	<b>1.2</b>	
ASTM C 127 AASHTO T85	Coarse Specific Gravity & Absorption	Bulk Specific Gravity (dry) =		
		Bulk Specific Gravity, SSD =		
		Apparent Specific Gravity =		
		Absorption, % =		
ASTM D2419 AASHTO T176	Sand Equivalent	Sand Equivalent, % =	<b>35</b>	
ASTM C 88 AASHTO T104	Soundness	Coarse Soundness Loss, % =	<b>1</b>	
		Sodium No. of Cycles =	<b>5</b>	
	Soundness	Fine Soundness Loss, % =	<b>1.0</b>	
		Sodium No. of Cycles =	<b>5</b>	
ASTM C 1252 AASHTO T304	Fine Aggregate Angularity	Uncompacted Voids, % =		
		Method C (as received material)		
ASTM C40 AASHTO T21	Organic Impurities	Coarse Aggregate, % =		
		Fine Aggregate, % =		
ASTM C142 AASHTO T112	Clay / Friable Particles	Coarse Aggregate, % =	<b>0</b>	
		Fine Aggregate, % =	<b>0</b>	
ASTM C123 AASHTO T113	Lightweight Pieces	Coarse Aggregate, % =	<b>0</b>	
		Fine Aggregate, % =	<b>0</b>	
ASTM D1883 AASHTO T193	CBR	Surcharge = 10 lbs CBR @ 0.1"=	<b>60</b>	
		Swell% = 0.0% CBR @ 0.2"=	<b>171</b>	
AASHTO 335	Fractured Face	1 or 2 Faces =	<b>1</b>	<b>2</b>
		Fractured Face, % =	<b>100</b>	<b>98</b>
ASTM D2487	Soil Classification	Group Symbol =		
		Group Name =		
ASTM D2488	Soil Description & Identification	Group Symbol =		
		Group Name =		

SIEVE ANALYSIS		
ASTM C136	AASHTO T27	
Sieve Size	Target % Passing	Spec.
300 mm (12")		
250 mm (10")		
225 mm (9")		
200 mm (8")		
150 mm (6")		
125 mm (5")		
100 mm (4")		
75.0 mm (3")		
63.0 mm (2-1/2")		
50.0 mm (2")		
37.5 mm (1-1/2")	<b>100</b>	
25.0 mm (1")	<b>91</b>	82-100
19.0 mm (3/4")	<b>85</b>	76-94
12.5 mm (1/2")	<b>79</b>	70-88
9.5 mm (3/8")	<b>74</b>	65-83
6.3 mm (1/4")		
4.75 mm (No.4)	<b>57</b>	50-64
2.36 mm (No.8)		
2.00 mm (No.10)	<b>32</b>	
1.18 mm (No.16)	<b>26</b>	21-31
0.600 mm (No.30)		
0.425 mm (No.40)	<b>19</b>	
0.300 mm (No.50)	<b>17</b>	
0.180 mm (No.80)		
0.150 mm (No.100)	<b>13</b>	
0.075 mm (No.200)	<b>9.7</b>	6.7-12.7
ASTM D422		
<b>Hydrometer =</b>		
ASTM C566 AASHTO T255		
<b>Moisture Content, % =</b>		
ASTM C136 AASHTO T27		
<b>Fineness Modulus (FM) =</b>		
AASHTO M145		
<b>Classification of Soils =</b>	<b>A1A</b>	
ASTM D4791 Ratio =	<b>5:1</b>	
<b>Flat &amp; Elongated, % =</b>	<b>0</b>	