GENEVA ROCK PRODUCTS, INC.



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AGGREGATE SUBMITTAL

Report of Physical Properties

GRP Material Description: Washed, 1/4 Squeegy Chip	Report Date: July 20, 2023
GRP Material Code: CHPB	Reviewed by: Dan McDaniel
Source Location/Code: POM / 533	Report No. 533CHPB00223

TEST RESULTS					
Standard	PHYSICAL PROPERTIES		Result	Test Source	
ASTM C 29	Unit	Unit Weight, lbs./cu.ft. =	95		
AASHTO T19	Weight	Voids, % =	41		
		☐ Jigged ☐ Loose ✓ Rodded			
ASTM D1557	Modified	Max. density, lbs./cu.ft. =			
AASHTO T180	Proctor	Optimum Moisture, % =			
ASTM D698	Standard	Max. density, lbs./cu.ft. =			
AASHTO T99	Proctor	Optimum Moisture, % =			
ASTM D4318	Liquid Limit	Liquid Limit=	0		
AASHTO T89/90	Plastic Limit	Plastic Limit=	0		
	Plasticity Index	Plasticity Index=	0		
ASTM C131	L.A.	Small Coarse Loss, % =	24		
AASHTO T96	Abrasion	Grading/Revolutions, =	D:500		
ASTM C535	L.A.	Large Coarse Loss, % =			
	Abrasion	Grading/Revolutions, =			
	Fine	Bulk Specific Gravity (dry) =			
ASTM C 128	Specific	Bulk Specific Gravity, SSD =			
AASHTO T84	Gravity &	Apparent Specific Gravity =			
	Absorption	Absorption, % =			
	Coarse	Bulk Specific Gravity (dry) =	2.527		
ASTM C 127	Specific	Bulk Specific Gravity, SSD =	2.567		
AASHTO T85	Gravity &	Apparent Specific Gravity =	2.633		
	Absorption	Absorption, % =	1.6		
ASTM D2419	Sand	Sand Equivalent, % =			
AASHTO T176	Equivalent	•			
	Soundness	Coarse Soundness Loss, % =	2		
ASTM C 88		Magnesium No. of Cycles =	5		
AASHTO T104	Soundness	Fine Soundness Loss, % =			
		Magnesium No. of Cycles =			
ASTM C 1252	Fine Aggregate	Uncompacted Voids, % =			
AASHTO T304	Angularity	Method C (as received material)			
ASTM C40	Organic	Coarse Aggregate, % =	Lighter F	Plate 1	
AASHTO T21	Impurities	Fine Aggregate, % =			
ASTM C142	Clay / Friable	Coarse Aggregate, % =	1		
AASHTO T112	Particles	Fine Aggregate, % =			
ASTM C123	Lightweight	Coarse Aggregate, % =	0		
AASHTO T113	Pieces	Fine Aggregate, % =			
ASTM D1883	CBR	Surcharge = 10 lbs CBR @ 0.1"=			
AASHTO T193		Swell% = 0.0% CBR @ 0.2"=			
ASTM D5821	Fractured Face	1 or 2 Faces =	İ	•	
		Fractured Face, % =			
ASTM D2487	Soil Classification	Group Symbol =	i		
	23 2	Group Name =			
		I Group Hairie -			

ASTM C136 AASHTO T27 Sieve Size % Passing Spec.	SIEVE ANALYSIS						
450 mm (18") 375 mm (15") 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") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.100) 1.180 mm (No.100) 0.75 mm (No.200) ASTM D422 Hydrometer = ASTM C566 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	ASTM C136 AASHTO T27						
375 mm (15") 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") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 99 6.3 mm (1/4") 94 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	Sieve Size	% 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") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 99 6.3 mm (1/4") 94 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2.36 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.100) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	450 mm (18")						
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") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 94 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2.36 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.50) 0.180 mm (No.100) 1.50 mm (No.100) 1.50 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	375 mm (15")						
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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") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.50) 0.150 mm (No.100) 1.50 mm (No.100) 0.75 mm (No.200) ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	250 mm (10")						
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") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 94 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2.36 mm (No.40) 0.300 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.100) 0.150 mm (No.100) 0.75 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	225 mm (9")						
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100 mm (4") 75.0 mm (3") 63.0 mm (2-1/2") 50.0 mm (2") 37.5 mm (1-1/2") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	150 mm (6")						
75.0 mm (3") 63.0 mm (2-1/2") 50.0 mm (2") 37.5 mm (1-1/2") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.50) 0.180 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	125 mm (5")						
63.0 mm (2-1/2") 50.0 mm (2") 37.5 mm (1-1/2") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2.0600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.50) 0.180 mm (No.100) 1.50 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	100 mm (4")						
50.0 mm (2") 37.5 mm (1-1/2") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.50) 0.150 mm (No.100) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	75.0 mm (3")						
37.5 mm (1-1/2") 25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T275 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	63.0 mm (2-1/2")						
25.0 mm (1") 19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.50) 0.150 mm (No.100) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T275 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	50.0 mm (2")						
19.0 mm (3/4") 12.5 mm (1/2") 9.5 mm (3/8") 99 6.3 mm (1/4") 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.50) 0.150 mm (No.100) 0.075 mm (No.100) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	37.5 mm (1-1/2")						
12.5 mm (1/2") 99 9.5 mm (3/8") 99 6.3 mm (1/4") 94 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	25.0 mm (1")						
9.5 mm (3/8") 99 6.3 mm (1/4") 94 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	19.0 mm (3/4")						
6.3 mm (1/4") 94 4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	12.5 mm (1/2")	100					
4.75 mm (No.4) 70 2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	9.5 mm (3/8")	99					
2.36 mm (No.8) 7 2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	6.3 mm (1/4")	94					
2.00 mm (No.10) 1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	4.75 mm (No.4)	70					
1.18 mm (No.16) 2 0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	2.36 mm (No.8)	7					
0.600 mm (No.30) 0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	2.00 mm (No.10)						
0.425 mm (No.40) 0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	1.18 mm (No.16)	2					
0.300 mm (No.50) 0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	0.600 mm (No.30)						
0.180 mm (No.80) 0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	0.425 mm (No.40)						
0.150 mm (No.100) 0.075 mm (No.200) 1.3 ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	0.300 mm (No.50)						
0.075 mm (No.200) ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	0.180 mm (No.80)						
ASTM D422 Hydrometer = ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	0.150 mm (No.100)						
Hydrometer =	0.075 mm (No.200)	1.3					
ASTM C566 AASHTO T255 Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	ASTM D422						
Moisture Content, % = ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	Hydrometer =						
ASTM C136 AASHTO T27 Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	ASTM C566 AASHTO T255						
Fineness Modulus (FM) = AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	Moisture Content, % =						
AASHTO M145 Classification of Soils = ASTM D4791 Ratio = 5:01	ASTM C136 AASHTO T27						
Classification of Soils =	Fineness Modulus (FM) =						
ASTM D4791 Ratio = 5:01	AASHTO M145						
I	Classification of Soils =						
Flat & Elongated = 0	ASTM D4791 Ratio =	5:01					
	Flat & Elongated =	0					

Soil Description &

Identification

ASTM D2488

Group Symbol =

Group Name =