



February 22, 2022

Utelite Corporation
6375 Three Mile Canyon Road,
Coalville, UT 84017

Attention: Mr. Jeff Barrick

Subject: Qualifications Testing of Utelite Structural Fine Lightweight Aggregate

Dear: Mr. Jeff Barrick

Kleinfelder has performed testing, per your request, to verify the conformance of Utelite Structural Fine Lightweight Aggregate with ASTM C330-17 "Standard Specification for Lightweight Aggregates for Structural Concrete".

Upon review of the results, the Utelite Structural Fine Lightweight Aggregates meet C330-17 test requirements for the Calendar Year 2022.

See the following results.

Sincerely,



Spencer Davis, PE
Principal Geotechnical Engineer

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REPORT of AGGREGATE PHYSICAL PROPERTIES

Project: Utelite Aggregate Qualification Testing
Client: Lafarge Holcim
Material Tested: Fine Aggregate
Source: Utelite

Lab No.: 22-SLC-00034
Project No: 20211829.001A
Sampled by: Utelite
Tested by : D. Aguirre
Reviewed by: K. Lobato

Report Date: 2/22/2022
Test Date: 1/10/2022

Aggregate Physical Properties

SIEVE ANALYSIS		
ASTM C136	AASHTO T27	
Sieve Size	Accum. % Passing	Specifications
9.5 mm (3/8")	100	100
4.75mm (No. 4)	99	85-100
2.36 mm (No. 8)	84	---
2.00 mm (No. 10)	78	---
1.18mm (No.16)	55	40-80
0.600 mm (No.30)	27	---
0.425mm (No. 40)	19	---
0.300mm (No. 50)	14	10-35
0.150mm (No.100)	8	5-25
0.075mm (No. 200)	4.4	---

TEST RESULTS			
Standard	CHEMICAL and PHYSICAL PROPERTIES	Results	Specification
ASTM C40	Organic Impurities	Color Comparison=	Lighter than Standard
ASTM C641	Staining Index	Stain Index=	20
ASTM C114	Loss on Ignition	Loss, %=	0.27
ASTM C142	Clay Lumps and Friable Particles	Fine Aggregate, %=	0.50
ASTM C29	Bulk Density: Dry Loose Condition	Unit Weight, lbs./cu.ft.=	57
ASTM C29	Bulk Density: Saturated Loose Condition	Unit Weight, lbs./cu.ft.=	69
ACI 211.2-98	Absorption of Lightweight Fine Aggregate	*Absorption, %=	22.8
ACI 211.2-98	Relative Density of Fine Aggregate (SSD)	Relative Density, (SSD)=	1.823
ASTM C88	Soundness of Aggregtes (Sodium Sulfate)	Soundness Loss, %=	8.5
ASTM C88	Soundness of Aggregates (Magnesium)	Soundness Loss, %=	7.9

*Absorption is calculated using a minimum soak time of 72-hours