



January 12, 2021

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 2021.

See the following results.

Sincerely,

A circular professional engineer seal for Spencer P. Davis, State of Utah. The seal contains the text: REGISTERED PROFESSIONAL ENGINEER, No. 8287229-2202, SPENCER P DAVIS, and STATE OF UTAH. The date 1/12/21 is handwritten in the center. A signature is written across the seal.

Spencer Davis, PE
Principal Geotechnical Engineer

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SIEVE ANALYSIS		
Sieve Size (ASTM C136)	Accum. % Passing	Specifications
9.5 mm (3/8")	100	100
4.75mm (No. 4)	99	85-100
2.36 mm (No. 8)	83	---
2.00 mm (No. 10)	79	---
1.18mm (No. 16)	56	40-80
0.600 mm (No. 30)	34	---
0.425mm (No. 40)	26	---
0.300mm (No. 50)	20	10-35
0.150mm (No. 100)	15	5-25
0.075mm (No. 200)	10.1	---

TEST RESULTS				
Standard	CHEMICAL and PHYSICAL PROPERTIES		Results	Specification
ASTM C40	Organic Impurities	Color Comparison=	Lighter than Standard	Lighter than Standard
ASTM C641	Staining Index	Stain Index=	20	20
ASTM C114	Loss on Ignition	Loss, %=	0.25	Less Than 5 Percent
ASTM C142	Clay Lumps and Friable Particles	Fine Aggregate, %=	0.59	Less than 2 Percent
ASTM C29	Bulk Density: Dry Loose Condition	Unit Weight, lbs./cu.ft=	59.0	70 PCF Maximum
ASTM C29	Bulk Density: Saturated Loose Condition	Unit Weight, lbs./cu.ft=	69.1	No Requirement
ASTM C1761	Absorption of Lightweight Fine Aggregate	*Absorption, %=	17.3	No Requirement
ASTM C127/128	Relative Density of Fine Aggregate (SSD)	Relative Density, (SSD)=	1.818	No Requirement
ASTM C88	Soundness of Aggregates (Sodium Sulfate)	Fine Soundness Loss, %=	2.8	Less than 10 Percent
ASTM C88	Soundness of Aggregates (Magnesium)	Fine Soundness Loss, %=	3.6	Less than 15 Percent

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