SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

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CONSTRUCTION MATERIALS TESTING

Valid To: May 31, 2021 Certificate Number: 3512.09

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory for:

Test Method:	**Test Description:**
Aggregates:	
ASTM C29/C29M	Bulk Density (Unit Weight) and Voids in Aggregate
ASTM C70	Surface Moisture in Fine Aggregate
ASTM C88	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C117	Materials Finer than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C123/C123M	Lightweight Particles in Aggregate
ASTM C127	Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
ASTM C128	Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
ASTM C131/C131M	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C136/C136M	Sieve Analysis of Fine and Coarse Aggregates
ASTM C142/C142M	Clay Lumps and Friable Particles in Aggregates
ASTM C535	Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C566	Total Evaporable Moisture Content of Aggregate by Drying
ASTM C 1260	Potential Alkali Reactivity of Aggregates
ASTM C1293	Determination of Length Change of Concrete Due to Alkali-Silica Reaction
ASTM D75/D75M	Practice for Sampling Aggregates
ASTM D2419	Sand Equivalent Value of Soils and Fine Aggregate
ASTM D4253	Maximum Index Density and Unit Weight of Soils Using a Vibratory Table
ASTM D4254	Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density

Test Method:	**Test Description:**
ASTM D4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
BS 812, Part 105.1	Determination of Particle Shape Flakiness Index
BS 812, Part 105.2	Determination of Particle Shape Elongation Index of Coarse Aggregate
BS 812, Part 110 & 111	Aggregate Crushing Value and Ten Percent Fines Value
BS 812, Part 112	Aggregate Impact Value
BS EN 1367-4	Drying Shrinkage of Aggregates
Bituminous:	
ASTM D5/D5M	Penetration of Bituminous Materials
ASTM D36/D36M	Softening Point of Bitumen
ASTM D95	Water in Petroleum Products and Bituminous Materials by Distillation
ASTM D113	Ductility of Bituminous Materials
ASTM D140/D140M	Sampling Bituminous Materials
ASTM D402	Distillation of Cutback Asphalt (Bituminous) Products
ASTM D546	Sieve Analysis of Mineral Filler for Bituminous Paving Mixtures
ASTM D979 /D979M [1]	Sampling Bituminous Paving Mixtures
ASTM D2041/D2041M	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
ASTM D2042	Solubility of Asphalt Materials in Trichloroethylene
ASTM D2107	Kinematic Viscosity of Asphalts (Bitumens)
ASTM D2172/D2172M	Quantitative Extraction of Bitumen From Bituminous Paving Mixtures
ASTM D2726	Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures
ASTM D3143	Flash Point of Cutback Asphalt with Tag Open-Cup Apparatus
ASTM D3549/D3549M	Thickness or Height of Compacted Bituminous Paving Mixture Specimens
ASTM D5361/D5361M[1]	Sampling Compacted Bituminous Mixtures for Laboratory Testing
ASTMD5444	Mechanical Size Analysis of Extracted Aggregate
ASTM D6307	Asphalt Content of Hot-Mix Asphalt by Ignition Method
ASTM D6926	Preparation of Bituminous Specimens Using Marshall Apparatus
ASTM D6927	Marshall Stability and Flow of Bituminous Mixtures
Cement:	
ASTM C185	Air Content of Hydraulic Cement
ASTM C191	Time of Setting of Hydraulic Cement by Vicat Needle
ASTM C204	Fineness of Hydraulic Cement by Air-Permeability Apparatus
ASTM C311	Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete
Clay Pipes:	
EN 295-3 (Section: 7, 13 28)	Vitrified clay pipe systems for drains and sewers – Part 3: Test Methods
Concrete:	
ASTM C31/C31M[1]	Making and Curing Concrete Test Specimens in the Field
ASTM C39/C39M	Compressive Strength of Cylindrical Concrete Specimens
ASTM C42/C42M	Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
ASTM C78/C78M[1]	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)
ASTM C138/C138M	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete

Test Method:	**Test Description:**
ASTM C143/C143M[1]	Slump of Hydraulic-Cement Concrete
ASTM C157/C157M	Length Change of Hardened Hydraulic-Cement Mortar and Concrete
ASTM C172/C172M[1]	Sampling Freshly Mixed Concrete
ASTM C192/C192M	Making and Curing Concrete Test Specimens in the Laboratory
ASTM C231/C231M[1]	Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C293/C293M	Flexural Strength of Concrete (Using Simple Beam With Center-Point Loading)
ASTM C403	Time of Setting of Concrete Mixtures by Penetration Resistance
ASTM C495	Compressive Strength of Lightweight Insulating Concrete
ASTM C496/C496M	Splitting Tensile Strength of Cylindrical Concrete Specimens
ASTM C511	Mixing Rooms, Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the Testing of Hydraulic Cements and Concretes
ASTM C617/C617M	Capping Cylindrical Concrete Specimens
ASTM C642	Density, Absorption, and Voids in Hardened Concrete
ASTM C805/C805M	Rebound Number of Hardened Concrete
ASTM C1064/C1064M[1]	Temperature of Freshly Mixed Hydraulic-Cement Concrete
ASTM C1202	Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration
ASTM C1231/C1231M	Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders
ASTM C1583[1]	Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method
BS EN 12390/DIN 1048	Water Permeability Test
BS EN 12390-2[1]	Making and curing specimens for strength tests
BS EN 12390-3	Compressive strength of test specimen
BS EN 12390-5	Flexural strength of test specimens
BS EN 12390-6	Tensile splitting strength of test specimens
BS EN 12390-7	Density of hardened concrete
BS 1881-108[1]	Method for making test cubes from fresh concrete
BS 1881-116	Method for determination of compressive strength of concrete cubes
BS 1881-122	Water Absorption of Hardened Concrete
Gypsum Board:	
ASTM C473	Physical Testing of Gypsum Panel Products
Masonry:	
ASTM C780 Annex A6	Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry
ASTM C140/C140M	Sampling and Testing Concrete Masonry Units and Related Units
NDT:	
ASTM C597	Pulse Velocity Through Concrete
ASTM D6132 [1]	Nondestructive Measurement of Dry Film Thickness of Applied Organic Coatings Using an Ultrasonic Coating Thickness Gage Active Standard(Latest Version)
Paint:	
ASTM D4541[1]	Pull-Off Strength of Coatings Using Portable Adhesion Testers
ASTM D7234[1]	Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers

Test Method:	**Test Description:**
Rock:	
BS EN 13383-2	Particle Density & Water Absorption
BS EN 1097-2 Section 5	Aggregate Impact Value
Soils:	
ASTM D421 2007	Dry Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants
ASTM D422 2007	Particle-Size Analysis of Soils
ASTM D854	Specific Gravity of Soil Solids by Water Pycnometer
ASTM D698	Laboratory Compaction Characteristics of Soil Using Standard Effort
ASTM D1140	Amount of Material in Soils Finer than No. 200 (75-µm) Sieve
ASTM D1196/D1196M; BS 1377, Part 9	Nonrepetitive Static Plate Load Tests of Soils and Flexible Pavement Components, for Use in Evaluation and Design of Airport and Highway Pavements
ASTM D1556/D1556M	Density and Unit Weight of Soil in Place by Sand-Cone Method
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort
ASTM D1883	CBR (California Bearing Ratio) of Laboratory-Compacted Soils
ASTM D2216	Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
ASTM D2487	Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D2488	Description and Identification of Soils (Visual-Manual Procedure)
ASTM D3282	Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes
ASTM D4318/D4318M	Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM D4429	CBR (California Bearing Ratio) of Soils in Place
ASTM D5334	Determination of Thermal Conductivity of Soil and Soft Rock by Thermal Needle Probe Procedure
ASTM D6473	Specific Gravity And Absorption of Rock For Erosion Control
ASTM D6913	Particle-Size Distribution (Gradation) of Soils Using Sieve Analysis
ASTM D6938[1]	In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
ASTM D7012 (Method C)	Compressive Strength and Elastic Modulii of Intact Rock Core Specimens under Varying States of Stress and Temperatures
Steel:	
ASTM A370 (Sections 11, 12, 13, 14, & Annex A3.2	Definitions for Mechanical Testing of Steel Products
ASTM E376	Measuring Coating Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Testing Methods
Thermal Conductivity:	
ISO 6946 / ASTM C518	Building Components and Building Elements – Thermal resistance Thermal transmittance – Calculation Method

[1] This laboratory meets A2LA *R104 – General Requirements: Accreditation of Field Testing and Field Calibration Laboratories* for these tests.

[2] This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn.

Accredited Laboratory

A2LA has accredited

FUGRO SUHAIMI LIMITED, YANBU

Madinat Yanbu Al-Sinaiyah, SAUDI ARABIA

for technical competence in the field of

Construction Materials Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 14th day of March 2019.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3512.09
Valid to May 31, 2021
Revised March 26, 2021

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Construction Materials Scope of Accreditation.