Hellenic Accreditation System

Annex F1/19 to the Certificate No. **564**-7

SCOPE of ACCREDITATION

of

Testing Laboratory

of

EPTISA ELLAS SOCIETE ANONYME

Materials / Products to be tested	Types of test / Properties to be measured	Applied methods / Techniques to be used
Physical Tests		
Aggregates	1.Sand equivalent value of soils and fine aggregate	ASTM D 2419-22
	2.Tests for geometrical properties of aggregates - Part 8: Assessment of fines - Sand equivalent test	EN 933-8:2012+A1:2015
	3.Tests for geometrical properties of aggregates - Part 9: Assessment of fines - Methylene blue test	EN 933-9:2022
	4.Materials finer than 75-μm (sieve No.200) in mineral aggregates by washing	ASTM C 117-17
	5.Bulk density (“unit weight”) and voids in aggregate	ASTM C29/C29M-23
	6.Density, relative density (specific gravity), and absorption of coarse aggregate	ASTM C 127-15

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Aggregates (continued)	7.Density, relative density (specific gravity), and absorption of fine aggregate	ASTM C128-22
	8.Tests for mechanical and physical properties of aggregates - Part 6: Determination of particle density and water absorption	EN 1097-6:2022 *Excluding Annexes A,B,C,D,E,H.*
	9.Sieve analysis of fine and coarse aggregates	ASTM C136/C136M-19
	10.Reducing samples of aggregate to testing size	ASTM C702/C702M-18
	11.Tests for general properties of aggregates - Part 2: Methods for reducing laboratory samples	ELOT EN 932-2:2000
	12.Tests for geometrical properties of aggregates - Part 3: Determination of particle shape - Flakiness index	ELOT EN 933-3:2012
	13.Soundness of aggregates by use of sodium sulfate or magnesium sulfate	ASTM C 88/C88M-18
	14.Tests for thermal and weathering properties of aggregates - Part 2: Magnesium sulfate test	ELOT EN 1367-2:2010
	15.Tests for geometrical properties of aggregates - Part 1: Determination of particle size distribution - Sieving method	ELOT EN 933-1:2012
	16.Tests for mechanical and physical properties of aggregates - Part 5: Determination of the water content by drying in a ventilated oven	ELOT EN 1097-5:2008
Soils	1.Laboratory compaction characteristics of soil using standard (600 kN-m/m^3) and modified (2700 kN-m/m^3) effort	ASTM D698-12(2021) ASTM D 1557-12(2021)

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Soils (continued)	2.Unbound and hydraulically bound mixtures - Part 2: Test methods for laboratory reference density and water content - Proctor compaction	EN 13286-2 :2010/AC:2012 *Excluding §7.3 and §7.6*
	3.Laboratory determination of water (moisture) content of soil and rock by mass	ASTM D 2216-19
	4.Determining the liquid limit of soils	AASHTO T89-22
	5.Determining the plastic limit and plasticity index of soils	AASHTO T90-22
	6.Determination of Organic Matter in Soils by Wet Combustion	AASHTO T194-22
Bricks	Determining the dimensions and water-absorption of bricks	STS D100 (17/07/1990)
Bituminous Materials	1.Bitumen and bituminous binders - Determination of needle penetration	EN 1426:2015
	2.Bitumen and bituminous binders - Determination of the softening point - Ring and Ball method	EN 1427:2015
Bituminous Mixtures	1.Bituminous mixtures - Test methods - Part 28: Preparation of samples for determining binder content, water content and grading	EN 12697-28:2020
	2.Quantitative extraction of bitumen from bituminous paving mixtures	ASTM D 2172/D2172M-17e1
	3. Bituminous mixtures - Test methods for hot mix asphalt - Part 1: Soluble binder content. Centrifuge extractor method	EN 12697-1:2020 *§ B.1.5*
	4.Mechanical size analysis of extracted aggregate	ASTM D 5444-23

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Bituminous Mixtures(continued)	5.Bituminous mixtures - Test methods - Part 2: Determination of particle size distribution	EN 12697-2:2015+A1:2019
	6.Bulk specific gravity and density of compacted bituminous mixtures using coated samples	ASTM D 1188/D1188M-22
	7.Bituminous mixtures - Test methods - Part 6: Determination of bulk density of bituminous specimens	EN 12697-6:2020
	8.Bulk specific gravity and density of non-absorptive compacted bituminous mixtures	ASTM D 2726 /D2726M-21
	9.Theoretical maximum specific gravity and density of bituminous paving mixtures	ASTM D 2041/D2041M-19
	10.Bituminous mixtures - Test methods - Part 5: Determination of the maximum density	EN 12697-5:2018 Procedure A
	11.Percent air voids in compacted dense and open bituminous paving mixtures	ASTM D 3203-2022
	12.Bituminous mixtures - Test methods - Part 8: Determination of void characteristics of bituminous specimens	EN 12697-8:2018
	13.Bituminous mixtures - Test methods - Part 12: Determination of the water sensitivity of bituminous specimens	EN 12697-12:2018 *Method A, §5*
	14.Bituminous mixtures - Test methods - Part 23: Determination of the indirect tensile strength of bituminous specimens	EN 12697-23:2017
Bituminous pavements	1.Thickness (or height) of compacted bituminous paving mixture specimens	ASTM D3549/D3549M-18(2023)
	2.Bituminous mixtures - Test methods for hot mix asphalt - Part 36: Determination of the thickness of a bituminous pavement	EN 12697-36:2022
	3.Measuring pavement macrotexture depth using a volumetric technique	ASTM E 965-15(2019)

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Concrete	1.Slump test	SK 309:1986
	2.Testing fresh concrete - Part 2: Slump test	EN 12350-2:2019
	3.Testing concrete in structures – Part 2: non-destructive testing – determination of rebound number	ΕΛΟΤ EN 12504-2:2021
	4.Determining the density of hardened concrete specimens	SK 304:1986
	5.Testing fresh concrete - Part 7: Air content - Pressure methods	EN 12390-7:2019 *Excluding §6.4,§6.5,§6.7*
Soils	Density and unit weight of soil in place by sand-cone method	ASTM D 1556/D1556M-15e1 ASTM D 4718/D4718M-15
Chemical tests		
Aggregates-Sand	1.Tests for chemical properties of aggregates, Part 1 Chemical analysis, par. 7 Determination of water-soluble chloride salts using the Volhard method	EN 1744-1:2009+A1:2012 Par.7
	2. Tests for chemical properties of aggregates, Part 1 Chemical analysis, par. 11 Determination of total sulfur content.	EN 1744-1:2009+A1:2012 Par. 11.1
Mechanical tests		
Aggregates	1.Tests for mechanical and physical properties of aggregates – part 8: determination of the polished stone value	ELOT EN 1097-8:2020
	2.Resistance to degradation of small-size coarse aggregate by abrasion and impact in the Los Angeles machine	ASTM C 131/C131M-20
	3.Resistance to degradation of large-size coarse aggregate by abrasion and impact in the Los Angeles machine	ASTM C535-16
	4.Crushed aggregates for normal concrete –Strength test of parent stone	ELOT 408:1979 *§3.1*
	5.Tests for mechanical and physical properties of aggregates - Part 2: Methods for the determination of resistance to fragmentation	ELOT EN 1097-2:2020

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Soils	CBR (California bearing ratio) of laboratory – compacted soils	ASTM D 1883-21
Soils	Soils for civil engineering purposes Part 9. In-situ tests, par. 4.3 Determination of the in-situ California Bearing Ratio (CBR)	BS 1377:Part 9:1990, par.4.3
Bricks	Determining the compressive strength of bricks	STS D100:1990
Bituminous Mixtures	Preparation of bituminous specimens using Marshall apparatus	ASTM D 6926-20
	Bituminous mixtures - Test methods - Part 30: Specimen preparation by impact compactor	EN 12697-30:2018
	Marshall stability and flow of bituminous mixtures	ASTM D 6927-22
	Bituminous mixtures - Test methods - Part 34: Marshall test	EN 12697-34:2020
Concrete	Determining the compressive strength of concrete specimens	SK 304:1986 HRCT 97:1997 Hellenic Regulation of Concrete Technology
	Testing hardened concrete - Part 3: Compressive strength of test specimens	EN 12390-3:2019 HRCT 2016 Hellenic Regulation of Concrete Technology
	Determining the compressive strength of drilled concrete cores	SK 304:1986 E7:1997 Ministry of Environment, Land Use and Public Works
	Determining the compressive strength of drilled concrete cores	EN 12390-3:2019 HRCT 2016 Hellenic Regulation of Concrete Technology
	Capping cylindrical concrete specimens	ASTM C 617/C617M-15
	Testing concrete – Part 204: recommendations on the use of electromagnetic covermeters (application range: pitch resolution > 75 mm and depth of cover ≤ 50 mm)	BS 1881 : Part 204 : 1988
	Determination of the compressive strength of hydraulically bound mixtures	EN 13286-41:2021 manufacture of test specimens: EN 13286-51:2004

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Sampling		
Bituminous mixtures / pavements	Sampling compacted bituminous mixtures for laboratory testing	ASTM D5361/D5361M-16(2022)
	Bituminous mixtures - Test methods - Part 27: Sampling	EN 12697-27:2017
	Sampling bituminous paving mixtures	ASTM D 979/ D979M-22
Concrete	Fresh concrete - sampling	SK 350:1985 HRCT 97:1997 Hellenic Regulation of Concrete Technology (ELOT 516:1982)
	Testing fresh concrete - Part 1: Sampling and common apparatus	EN 12350-1:2019
	Preparing and curing of concrete specimens	SK 303:1985
	Testing hardened concrete - Part 2: Making and curing specimens for strength tests	EN 12390-2:2019
	Sampling of drilled concrete cores	E7:1997 Ministry of Environment, Land Use and Public Works
	Testing concrete in structures - Part 1: Cored specimens - Taking, examining and testing in compression	EN 12504-1 :2019 / AC 2020
Aggregates	Sampling aggregates	ASTM D 75/D75M-19
	Tests for general properties of aggregates - Part 1: Methods for sampling	EN 932-1:1996
Bricks	Sampling bricks	STS D100:1990
Steel	Sampling reinforcing steel bars	HRST 08, Hellenic regulation of steel technology ELOT 1421-2:2007 ELOT 1421-3:2007 ELOT EN 10080:2005

Site of assessment: **Permanent laboratory premises, 1 Marinou Antipa Street, Ampelonas, Larissa, Greece.**
Approved Signatories: **Theophilos Charalabidis, Antonios Lilis.**

This Scope of Accreditation replaces the previous one dated 26.09.2023.
The Accreditation Certificate No. **564**-7, to ELOT EN ISO/IEC 17025:2017, is valid until 02.06.2025.

Athens, 02.07.2024

Christos Nestoras
CEO of ESYD