KAUNO TECHNOLOGIJOS UNIVERSITETO
STATYBINIŲ MEDŽIAGŲ IR KONSTRUKCIJŲ
TYRIMŲ CENTRAS
Studentų g. 48, LT - 51367 Kaunas

KAUNAS UNIVERSITY OF TECHNOLOGY
BUILDING MATERIALS AND STRUCTURES RESEARCH CENTRE
Studentų g. 48, Radvilėnų pl. 19, Kaunas

SCOPE OF ACCREDITATION
FLEXIBLE*

Name of test / sample object	Test / trial components, parameters or characteristics	Mark, section, item of the method document (where applicable)	Method type, principle and/or used equipment (where applicable))
CONCRETE TECHNOLOGY LABORATORY, Studentų g. 48, Kaunas			
1. Aggregates			
Sand, gravel, crushed stone, mixtures, primers	Sampling	LST EN 932-1:2001	From the bunker, from the piles
	Granulometric composition	LST EN 933-1:2012	Washing and sieving or dry sieving
	Flakiness index	LST EN 933-3:2012	Sieving through bar sieves
	Shape index	LST EN 933-4:2008	Measurement with a special gauge
	Bulk density and voids	LST EN 1097-3:2002, except the Annex A	Weighing method, counting method
	Particle density and water absorption	LST EN 1097-6:2022	Wire basket method for aggregate particles from 31.5 mm to 63 mm; pycnometer method for filler particles from 4 mm to 31.5 mm and for filler particles from 0.063 mm to 4 mm
	Resistance to freezing and thawing (loss of mass)	LST EN 1367-1:2007	Determination of mass loss after cyclic freezing and thawing
	MS value	LST EN 1367-2:2010	Magnesium sulfate method
	Los Angeles coefficient LA	LST EN 1097-2:2020	The Los Angeles Method
	Relative amount of crushed particles	LST EN 933-5:2023	Weighing of selected (sorted) particles
	Number of shells (SC)	LST EN 933-7:2002	By selecting shells and shell fragments from coarse aggregates and determining the mass ratio
	Resistance to splitting (C_a)	LST EN 13055:2016 Annex C	Determination of mechanical resistance under compression in a cylinder
	Amount of reactive rocks (copper and flint)	LST 1974:2012 M Annex, M.1 p.	Dissolving reactive rocks in a 10% NaOH solution
	Laboratory test methods to determine density and water content	LST EN 13286-2:2010 + AC:2013	Proctor mold (C) with a 15.0 kg hammer (C)
	Water permeability	LST EN ISO 17892-11:2019	Determination with a cylindrical rigid wall permeability meter under conditions of constant hydrostatic pressure

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2. Mortars			
Construction mortars and their mixtures (excluding lime)	Sampling and preparation	LST EN 1015-2:2001 + A1:2007 LST EN 934-6:2019	Collection of a composite sample and preparation of a composite test sample from it; Production of mortars from dry components and water
	Density	LST EN 1015-10:2002+P:2004+A1:2007	Determining density by measuring dimensions and mass
	Bending and compressive strength	LST EN 1015-11:2020, LST EN 12190:2002, LST EN 13892-2:2003	Bending and/or crushing the specimens until disintegration
	Freezing resistance (compressive strength and/or change in mass)	LST L 1413.11:2005	Determination of compressive strength and/or mass change after cyclic freezing and thawing
	Adhesion strength	LST EN 1542:2000 LST EN 1015-12:2016	Determination of adhesion strength under mechanical loads
	Bulk density	LST EN 1015-6:2002+P:2004+A1:2007, except 7.2.1 p.	Determining density by measuring dimensions and mass
	Moisture; Water soak	LST 1413-10:2024	Determination of moisture and water absorption during drying
3. Concrete mixtures			
Concrete mixtures	Sampling	LST EN 12350-1:2019	Local and composite sampling
	Fluency	LST EN 12350-2:2019	Evaluation of compacted concrete mix consistency by concrete shrinkage distance after cone removal
	Spread t_{500} duration	LST EN 12350-8:2019	Scatter measurement using a standard cone
	Vebe time	LST EN 12350-3:2019	A method for determining the consistency of a concrete mixture using Vebe time
	Compactibility	LST EN 12350-4:2019	Method for determining the consistency of the concrete mixture by determining compaction
	Emissivity value	LST EN 12350-5:2019	Determination of the consistency of the concrete mixture by measuring the spread of the concrete mixture on a flat slab
	Density	LST EN 12350-6:2019	Weighing the compacted concrete mixture in a container of known volume and mass
	Air volume	LST EN 12350-7: 2019+AC:2022	Pressure measurement method
	Flow time	LST EN 12350-9:2010	Determining the flow time using a special V-shaped funnel
	Permeability ratio	LST EN 12350-10:2010	Determination of permeability using a special L-shaped box
	Delaminated part	LST EN 12350-11:2010	Determination of resistance to delamination by sieving

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	Permeability; Spreading; Flow time	LST EN 12350-12:2010	Determination of permeability, spread and flow time using a special blocking ring
	Setting time	LST EN 480-2:2007	Determination of the binding duration (beginning and end) with the Viko device
	Water separation	LST EN 480-4:2006	Determining the mass of released water
	Fiber content	LST EN 14721+A1:2007, B method	Method B: determination of fiber content in fresh concrete
4. Hardened concrete			
The specimens of hardened concrete	Making and hardening of specimens for strength determination	LST EN 12390-2:2019	Form preparation and filling, concrete compaction, surface leveling, sample hardening and transportation
	Compressive strength	LST EN 12390-3:2019	Crushing of samples until disintegration; Maximum breaking load 3000 kN
	Density	LST EN 12390-7:2019+AC:2021	Determining density by measuring dimensions and mass
	Tensile strength	LST EN 12390-6:2024	Splitting samples to cracking; Maximum breaking load 3000 kN
	Depth of water penetration	LST EN 12390-8:2019	Measurement of water penetration depth after exposure to water pressure
	Waterproof	LST 1974:2012, O Annex	Measurement by increasing water pressure: 0.2; 0.4; 0.6; 0.8; 1.0; 1.2 MPa
	Shrinkage deformations	LST EN 12390-16:2019	Determination of shrinkage deformations under drying conditions
	Coefficient of chloride migration	LST EN 12390-18:2021+A1:2024	Assessment of the increase in sodium chloride
	Freezing resistance	LST 1428-17:2024; SS 13 72 44:2019	Determination of compressive strength and/or mass change after cyclic freezing and thawing
	Adhesion strength	LST EN 12636:2000; LST EN 13892-8:2003	Determining the adhesion of fresh concrete to the surface (glued liner method)
	Water absorption	LST EN 13369:2024, F Annex	Mass estimation by weighing soaked and dried samples to constant mass
	Moisture	LST EN ISO 12570:2000+A1:2013+A2:2018	Estimation of moisture content by change in mass
	Volume loss	LST EN 1338:2003+AC:2006+P:2008, H Annex LST EN 13892-3:2015	Measurement of abrasion (wear resistance) by the Bohme method
	Rebound number	LST EN 12504-2:2021	Determination of rebound index using a sclerometer
	Carbonation depth	LST EN 14630:2007	Phenolphthalein method

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	Fiber content	LST EN 14721+A1:2007 A Annex	Determination of fiber content in hardened concrete
	Resistance to carbonization	LST EN 13295:2004	CO_2 impact assessment
	Tensile strength in bending	LST EN 14651+A1:2007	Bending of specimens to failure
	Alkaline corrosion	ŠBK-1. Alkaline concrete corrosion determination methodology	Determining and visual assessment of expansion deformations
	Capillary absorption	LST EN 480-5:2006	Determination of water absorption by mass change
	Bending strength	LST EN 12390-5:2019	Bending of specimens to failure
5. Cement			
Cemento bandiniai	Setting times	LST EN 196-3:2017, except 7 p.	Determining the duration (beginning and end) of bonding with the Viko device
	Compressive strength	LST EN 196-1:2016	Crushing of specimens until disintegration. Maximum breaking load 600 kN
6. Masonry products			
Ceramic (except refractory), silicate, concrete, autoclaved aerated concrete, natural stone masonry products	Dimensions	LST EN 772-16:2011	Measurement of geometric dimensions
	Capillary water absorption	LST EN 772-11:2011+P:2014	Measurement of the mass of water absorbed by the surface of aggregate concrete, autoclaved aerated concrete, artificial and natural stone masonry products over a specified period of time
	Initial rate of water absorption	LST EN 772-11:2011+P:2014	Measurement of the mass of water absorbed by the surface of ceramic masonry products within a specified time
	Compressive strength	LST EN 772-1:2011+A1:2015	Crushing the samples by grinding them or covering them with mortar until disintegration; Maximum breaking load 2500 kN
	Freezing resistance	LST 1428-17:2024	Determination of compressive strength and/or mass change after cyclic freezing and thawing
7. Concrete elements for landscaping			
Paving blocks, tiles, road and lawn curbs, etc	Sampling	LST EN 1338:2003+AC:2006+P:2008, Annex B LST EN 1339:2003+AC:2006, Annex B LST EN 1340:2003+AC:2006 Annex B	A random selection of typical products

Name of test / sample object	Test / trial components, parameters or characteristics	Mark, section, item of the method document (where applicable)	Method type, principle and/or used equipment (where applicable))
	Dimensions, visual features	LST EN 1338:2003+AC:2006+P: 2008, Annex C and J LST EN 1339:2003+AC:2006, Annex C and J LST EN 1340:2003+AC:2006, Annex C and J	Geometric assessment of dimensions; Visual assessment
	Flexural strength; Breaking load	LST EN 1339:2003+AC:2006, Annex F LST EN 1340:2003+AC:2006, Annex F	Bending of specimens until disintegration; Maximum breaking load 100 kN
	Split tensile strength; Breaking load	LST EN 1338:2003+AC:2006+P: 2008, Annex F	Splitting samples to disintegration; Maximum breaking load 600 kN
	Water absorption	LST EN 1338:2003+AC:2006, Annex E LST EN 1339:2003+AC:2006, Annex E LST EN 1340:2003+AC:2006, Annex E	Mass estimation by weighing soaked and dried samples to constant mass
	Volume loss	LST EN 1338:2003+AC:2006+P: 2008, Annex H LST EN 1339:2003+AC:2006, Annex H LST EN 1340:2003+AC:2006, Annex H	Measurement of abrasion (wear resistance) by the Bohme method
	Freezing resistance	LST 1428-17:2024 LST EN 1338:2003+AC:2006+P: 2008, Annex D LST EN 1339:2003+AC:2006, Annex D LST EN 1340:2003+AC:2006, Annex D	Determination of compressive strength and/or mass change after cyclic freezing and thawing
8. Natural stone			
Natural stone	Uniaxial compressive strength	LST EN 1926:2007	Crushing of specimens until disintegration Maximum breaking load 3000 kN
	Water absorption	LST EN 13755:2008	Determination of water absorption at atmospheric pressure
9. Concrete and reinforced concrete products			

Name of test / sample object	Test / trial components, parameters or characteristics	Mark, section, item of the method document (where applicable)	Method type, principle and/or used equipment (where applicable))
Products for the installation of foundations, various panels, beams, trusses, stairs, columns, wells, posts, sleepers	Sampling	LST EN 12350-1:2019	Local and composite sampling
	Sampling	LST EN 12504-1:2019+AC:2021	Sampling (core drilling), core inspection and preparation
	Compressive strength	LST EN 12390-3:2019	Crushing of samples until disintegration; Maximum breaking load 3000 kN
	Freezing resistance	LST 1428-17:2024	Determination of compressive strength and/or mass change after cyclic freezing and thawing
	Depth of water penetration	LST EN 12390-8:2019	Measurement of water penetration depth after exposure to water pressure
	Waterproof	LST 1974:2012	Measurement by increasing the water pressure: 0.2; 0.4; 0.6; 0.8; 1.0; 1.2 MPa
	Split tensile strength	LST EN 12390-6:2024	Splitting samples to disintegration; Maximum breaking load 600 kN
	Carbonation rate	LST EN 12390-10:2019	Determination of carbonation resistance of concrete at atmospheric carbon dioxide concentration
	Water absorption	LST EN 13369:2024, Annex F	Mass estimation by weighing soaked and dried samples to constant mass
	Density	LST EN 12390-7:2019+AC:2021	Determining density by measuring dimensions and mass
	Volume loss	LST EN 13892-3:2015	Measurement of abrasion (wear resistance) by the Bohme method
CONSTRUCTION RESEARCH LABORATORY, Studentų g. 48, 51367 Kaunas			
10. Concrete and reinforced concrete constructions			
Ceiling and roof panels, multi-purpose columns, stair elements, lintels other than composite and composite lintels, of reinforced concrete sleepers	Dimensions	LST EN 13369:2024 G priedas	Assessment of the geometric parameters of the specimen
	Bending moment test	LST EN 13230-2:2016	Bending moment estimation
	Fatigue test	LST EN 13230-4:2016+A1:2020	Fatigue assessment by wedge
11. Natural and glued wood constructions			
Natural and glued wood	Moisture	LST EN 13183-1:2003+AC:2004 LST EN 13183-2:2003+AC:2004	Assessment of moisture by drying (up to completely dry sample weight) and electrical resistance measurement method
	Density	LST EN 408:2010+A1:2012 7 p.	Calculating the ratio of determined mass to volume
	Bending strength	LST EN 408:2010+A1:2012 19 p.	4-point bending to disintegration
LABORATORY OF POLYMERIC MATERIALS AND COMPOSITES, Radvilėnų pl. 19, 50254 Kaunas			
12. Mineral aggregates and cement			

Name of test / sample object	Test / trial components, parameters or characteristics	Mark, section, item of the method document (where applicable)	Method type, principle and/or used equipment (where applicable))
Sand, gravel, crushed stone, mixtures, primers; cement	Content of sulfate and sulfur	LST EN 1744-1:2009+A1:2013, 10.1 p., 11.1 p., 12 p.	Gravimetry
	Content of chloride	LST EN 1744-1:2009+A1:2013, 7 p.	Volhard method
	Content of alkali	LST EN 196-2:2013, 4.5.19 p.	Flame photometry
	Content of carbon dioxide	LST EN 196-2:2013, 4.5.17 p.	Gravimetry
	Content of of light pollutants	LST EN 1744-1:2009+A1:2013, 14.2 p.	Gravimetry
	Content of organic impurities	LST EN 1744-1:2009+A1:2013, 15.1 p.	Visual method
	Methylene blue indicator	LST EN 933-9:2022	Methylene blue test

* One case of flexibility has been identified and applied to the whole field of accreditation - the application of new editions of normative documents describing test methods or replacing identical normative documents.