Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER

State Secretariat for Economic Affairs SECO
Swiss Accreditation Service SAS

STS Directory

Accreditation number: STS 0338

International standard:	ISO/IEC 17025:2017
Swiss standard:	SN EN ISO/IEC 17025:2018

Empa
Abteilung 308 (Beton & Asphalt)
Überlandstrasse 129
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Initial accreditation:	26.04.2002
Current accreditation:	17.08.2021 to 16.08.2026
Scope of accreditation see:	www.sas.admin.ch (Accredited bodies)

Scope of accreditation as of 17.08.2021

Testing laboratory for concrete, mortar, aggregates, cement, additives, admixtures and in situ tests

Group of products or materials, field of activity	Principle of measurement [3] (characteristics, measuring ranges, type of test)	Test methods, remarks (national, international standards, in-house test methods)
Various tests with multiple applications: building materials, buildings, water, wood, plastics, etc.	Rheological measurements with Rheometer Paar Physica MCR 300 (admixtures for concrete, mortar and grout)	In-house procedure
(Hardened) concrete	Determination of the equivalent flexural tensile strength (metallic fibre reinforced concrete)	DAfStb-Richtlinie, Deutscher Ausschuss für Stahlbeton (DAfStb)
	Determination of pull-off (tension) strength	DIN 1048, repealed standard, Teil 2
	Determination of the permeability to gas	In-house procedure
	Determination of total porosity by saturation under pressure	In-house procedure
	Determination of the Freeze-Thaw Cycling resistance of noise protection walls	In-house procedure

1) Scope of accreditation type A (fix)
2) Scope of accreditation type B (flexible)
3) Scope of accreditation type C (flexible)

Definition of flexibilty see SAS Document 741

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Group of products or materials, field of activity	Principle of measurement [3] (characteristics, measuring ranges, type of test)	Test methods, remarks (national, international standards, in-house test methods)
	Determination of the oxygen diffusion coefficient	In-house procedure
	Fast pore analysis	EMPA Richtlinie 1989
	Determination of the porosity	SIA 162/1, test nr. 07, repealed standard
	Determination of the Freeze Cycling	SIA 162/1, test nr. 08, repealed standard
	Determination of Metallic Fiber Content (metallic fibre reinforced concrete)	SIA 162/6 resp. SN 562 162/6
	Plate flexural test (metallic fibre reinforced concrete)	SIA 162/6 resp. SN 562 162/6
	Tensile behavior test according to standard: High-Performance Fiber Concrete (HPFC) - Materials, Dimensioning and Execution	SIA 2052, annex D
	Bending tensile test according to standard: High-Performance Fiber Concrete (HPFC) - Materials, Dimensioning and Execution	SIA 2052, annex E
	Determination of water infiltration rate	SIA 262/1 appendix A resp. SN 505 262/1
	Determination of the resistance to chlorides	SIA 262/1 appendix B resp. SN 505 262/1
	Determination of the Freeze-thaw resistance	SIA 262/1 appendix C resp. SN 505 262/1
	Determination of the resistance to sulfates	SIA 262/1 appendix D resp. SN 505 262/1
	Resistance to alkali-aggregate reaction (AAR): performance test	SIA 262/1 appendix G resp. SN 505 262/1
	Determination of resistance to carbonation	SIA 262/1 appendix I resp. SN 505 262/1
	Determination of air void characteristics	SIA 262/1 appendix K resp. SN 505 262/1
	Determination of elastic modulus	SIA 262/1:2013 appendix G resp. SN 505 262/1, repealed standard
	Determination of secant modulus of elasticity in compression	SN EN 12390-13 resp. SIA 262.263

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	Determination of the shrinkage of concrete	SN EN 12390-16 resp. SIA 262.266
	Determination of creep in compression for concrete	SN EN 12390-17 resp. SIA 262.267
	Making and curing specimens for strength tests	SN EN 12390-2 resp. SIA 262.252, modified procedure
	Compressive Strength of test specimens	SN EN 12390-3 resp. SIA 262.253
	Determination of flexural strength of test specimens	SN EN 12390-5 resp. SIA 262.255
	Determination of Tensile splitting strength of test specimens	SN EN 12390-6 resp. SIA 262.256
	Determination of Density of hardened concrete	SN EN 12390-7 resp. SIA 262.257
	Determination of the depth of penetration of water under pressure	SN EN 12390-8 resp. SIA 262.258
	Measurement of bond strength by pull-off (Products and systems for the protection and repair of concrete structures)	SN EN 1542 resp. SIA 162.421
Cement	Standard Test Method for Autogenous Strain of Cement Paste and Mortar	ASTM C1698
	Determination of Strength (flexural and compressive strength)	SN EN 196-1 resp. SIA 215.011
	Determination of setting time and soundness	SN EN 196-3 resp. SIA 215.013
	Quantitative determination of cement constituents	SN EN 196-4 resp. SIA 215.014
	Determination of Fineness	SN EN 196-6 resp. SIA 215.016
Mortar (for masonry)	Standard Test Method for Flow of Grout for Preplaced-Aggregate Concrete (Flow Cone Method)	ASTM C939
	Qualification tests and determination of the conformity of normal anchoring mortars for use in permafrost	Richtlinie für den Lawinenverbau im Anbruchgebiet, BUWAL/WSL, Ausgabe 1990 / ergänzt 2007 und 2017, modified procedure

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Fresh concrete and mortar	Determination of flexural and compressive strength of hardened mortar	SN EN 1015-11 resp. SIA 177.161
	Determination of water retentivity of freshly mixed mortar by the filter plate method - mortars containing mineral binders	DIN 18555-7
	Determination of the seperation	In-house procedure
	Determination of the water content of freshly mixed concrete	SIA 262/1 appendix H resp. SN 505 262/1
	Bulk sampling of mortars and preparation of test mortars - mortar for masonry	SN EN 1015-2 resp. SIA 177.152
	Determination of consistence of fresh mortar (by flow table) - mortar for masonry	SN EN 1015-3 resp. SIA 177.153
	Determination of bulk density of fresh mortar - mortar for masonry	SN EN 1015-6 resp. SIA 177.156
	Determination of air content of fresh mortar - mortar for masonry	SN EN 1015-7 resp. SIA 177.157
	Sampling fresh concrete	SN EN 12350-1 resp. SIA 262.231
	L box test (Self-compacting concrete)	SN EN 12350-10 resp. SIA 262.240
	J-ring test (Self-compacting concrete)	SN EN 12350-12 resp. SIA 262.242
	Essai d'affaissement	SN EN 12350-2 resp. SIA 262.232
	Determination of degree of compactability	SN EN 12350-4 resp. SIA 262.234
	Flow table test	SN EN 12350-5 resp. SIA 262.235
	Determination of Density	SN EN 12350-6 resp. SIA 262.236
	Determination of air content; Pressure methods	SN EN 12350-7 resp. SIA 262.237
	Slump-flow test (Self- compacting concrete)	SN EN 12350-8 resp. SIA 262.238

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Concrete structures and elements	Taking, examining and testing in compression cored specimens of concrete in structures	SN EN 12504-1 resp. SIA 262.213
	Determination of rebound number (Schmidt Hammer) of concrete in structures - Non-destructive testing	SN EN 12504-2 resp. SIA 262.214
(Mineral-) aggregates, sand, gravel, coarse aggregates, crushed stones, filler, unbound materials, etc.	Determination of the pureness of aggregates, decantation test	SIA 162/1, test nr. 12, repealed standard
	Mineralogy and qualitative and quantitative petrography of aggregates	SN 670 115
	Determination of resistance of aggregates to fragmentation	SN EN 1097-2 resp. SN 670 903-2
	Determination of loose bulk density and voids of aggregates	SN EN 1097-3 resp. SN 670 903-3
	Determination of the water content of aggregates by drying in a ventilated oven	SN EN 1097-5 resp. SN 670 903-5
	Determination of particle density and water absorption of aggregates	SN EN 1097-6 resp. SN 670 903-6
	Methods for sampling aggregates	SN EN 932-1 resp. SN 670 901-1
	Methods for reducing laboratory samples of aggregates	SN EN 932-2 resp. SN 670 901-2
	Determination of particle size distribution of aggregates - Sieving Method	SN EN 933-1 resp. SN 670 902-1
	Determination of Particle Shape of aggregates - Flakiness Index	SN EN 933-3 resp. SN 670 902-3
	Determination of particle shape of aggregates; shape index	SN EN 933-4 resp. SN 670 902-4
	Determination of percentage of crushed and broken surfaces in coarse aggregate particles	SN EN 933-5 resp. SN 670 902-5
	Methylene blue test for assessment of fines of aggregates	SN EN 933-9 resp. SN 670 902-9

The testing laboratory maintains a list with detailed information on the activities within the scope of accreditation. It is available upon request at the testing laboratory.

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In case of contradictions in the language versions of the directories, the German version shall apply.

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