



STS Directory

Accreditation number: STS 0338

International standard: ISO/IEC 17025:2005
Swiss standard: SN EN ISO/IEC 17025:2005

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Internet: <http://www.empa.ch/abt308>
Initial accreditation: 26.04.2002
Current accreditation: 15.04.2016 to 14.04.2021
Scope of accreditation see: www.sas.admin.ch
(Accredited bodies)

Scope of accreditation as of 13.11.2017

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. (Hardened) concrete	Rheological measurements with Rheometer Paar Physica MCR 300 (admixtures for concrete, mortar and grout)	In-house procedure
	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 Teil 2
	Determination of the permeability to gas	In-house procedure
	Determination of total porosity by saturation under pressure	In-house procedure



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(Hardened) concrete	Determination of the Freeze-Thaw Cycling resistance of noise protection walls	In-house procedure
	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, abrogated norm
	Determination of the Freeze Cycling	SIA 162/1, test nr. 08, abrogated norm
	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
	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
	Determination of (creep) and shrinkage	SIA 262/1 appendix F resp. SN 505 262/1
	Determination of the Elastic Moduli	SIA 262/1 appendix G resp. SN 505 262/1, canceled annex according to SIA 262/1-C1
	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
Performance test - reactivity of a concrete mixture against alkali reaction (AAR)	SIA guideline 2042, appendix F	
Flexural strength test according to standard: High-Performance Fiber Concrete (HPFC) - Materials, Dimensioning and Execution	SIA 2052	



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(Hardened) concrete	Determination of compressive strength of concrete cubes according to norm: Shape, dimensions and other requirements for specimens and moulds	SN EN 12390-1 resp. SIA 262.251
	Determination of secant modulus of elasticity in compression	SN EN 12390-13 bzw. SIA 262.263
	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 C1698-09
	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 C939-02



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Mortar (for masonry)	Qualification tests and determination of the conformity of normal anchoring mortars for use in permanent frost	Richtlinie für den Lawinenverbau im Anbruchgebiet, BUWAL/WSL, Ausgabe 1990 / ergänzt 2007, modified procedure
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 separation	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
	Slump test	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	



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Fresh concrete and mortar	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
Concrete structures and elements	Taking, examining and testing in compression cored specimens of concrete in structures	SN EN 12504-1 resp. SIA 262.213
Concrete and mortar: in situ tests	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, abrogated norm
	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



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(Mineral-) aggregates, sand, gravel, coarse aggregates, crushed stones, filler, unbound materials, etc.	Determination of particle shape of aggregates; shape index Determination of percentage of crushed and broken surfaces in coarse aggregate particles Methylene blue test for assessment of fines of aggregates	SN EN 933-4 resp. SN 670 902-4 SN EN 933-5 resp. SN 670 902-5 SN EN 933-9 resp. SN 670 902-9

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

Definition of flexibility see SAS Document 741