



## STS Directory

Accreditation number: STS 0133

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

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Technology and research in  
concrete construction  
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Internet: [www.tfb.ch](http://www.tfb.ch)  
Initial accreditation: 19.10.1995  
Current accreditation: 04.03.2024 to 03.03.2029  
Scope of accreditation see: [www.sas.admin.ch](http://www.sas.admin.ch)  
(Accredited bodies)

### Scope of accreditation as of 04.03.2024

**Testing laboratory for hydraulic binders, soils, mortar, masonry units, concrete, aggregates, additives, admixtures, pigments, fibres, mixing water, protection and repair of concrete structures, bituminous building materials and binders as well as for in situ tests**

Group of products or materials, field of activity	Principle of measurement <sup>3)</sup> (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	Determination of sodium and potassium content with flame photometry	In-house procedure
	Sampling, testing and assessing the suitability of water, including water recovered from processes in the concrete industry, as mixing water for concrete	SN EN 1008 resp. SIA 162.157
	Detailed microscopic analysis of microstructure and determination of causes of damages	In-house procedure
	Microscopic analysis of microstructure Determination of the Freeze Cycling	In-house procedure SIA 162/1, test nr. 8, repealed standard



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	Tensile behavior test according to standard: High-Performance Fiber Concrete (HPFC) - Materials, Dimensioning and Execution	SIA 2052, annex D
	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 air infiltration rate	SIA 262/1 appendix E 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 the flexural tensile strength according to norm: Betondecken	SN 640 461
	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 resp. SIA 262.263
	Determination of the shrinkage of concrete	SN EN 12390-16 resp. SIA 262.266
	Making and curing specimens for strength tests	SN EN 12390-2 resp. SIA 262.252
	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

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



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Cement	Taking, examining and testing in compression cored specimens of concrete in structures	SN EN 12504-1 resp. SIA 262.213
	Determination of carbonation depth in hardened concrete by the phenolphthalein method - Products and systems for the protection and repair of concrete structures	SN EN 14630 resp. SIA 262.495
	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
	Determination of water absorption coefficient by partial immersion (ISO 15148:2002) according to norm: Hygrothermal performance of building materials and products	SN EN ISO 15148 resp. SIA 180.224
	Determination of the freeze and freeze-thaw resistance BE I (concrete surface layer) according to norm: Betondecken - Prüfmethode zur Bestimmung des Frost- und Frosttaumittelwiderstands	VSS 40 464
	Physical determination of the Freeze-thaw resistance BE II FT according to norm: Betondecken - Prüfmethode zur Bestimmung des Frost- und Frosttaumittelwiderstands	VSS 40 464
	Determination of the freeze and freeze-thaw resistance	VSS Bericht Nr. 1554: "Bestimmung der Frost- und Frosttausalzbeständigkeit" - "TFB-Prüfung", modified procedure according to Cementbulletin 10/1986
	Quantitative determination of constituents of cement	CEN TR 196-4
	Determination of the density of cement (helium-pycnometer)	In-house procedure
	Determination of loss on ignition (300, 600, 900°C)	In-house procedure
Determination of active alcalis of cements	SIA 262/1 appendix G and SIA guideline 2042 appendix F.2	
Determination of Strength (flexural and compressive strength)	SN EN 196-1 resp. SIA 215.011	
Determination of the water soluble chromium (VI) content of cement	SN EN 196-10 resp. SIA 215.040	

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	Determination of the alkalines by flame photometry	SN EN 196-2 resp. SIA 215.012
	Total chemical analysis of cement with X-Ray Fluorescence XRF	SN EN 196-2 resp. SIA 215.012
	Determination of the Chloride, Carbon Dioxide and Alkali Content of Cement	SN EN 196-2 resp. SIA 215.012
	Determination of chloride content	SN EN 196-2 resp. SIA 215.012
	Determination of loss on ignition according to norm: chemical analysis of cements	SN EN 196-2 resp. SIA 215.012
	Determination of sulfides content according to norm: chemical analysis of cements	SN EN 196-2 resp. SIA 215.012
	Determination of content of insoluble residues according to norm: chemical analysis of cements	SN EN 196-2 resp. SIA 215.012
	Chemical Analysis of Cement	SN EN 196-2 resp. SIA 215.012
	Gravimetric determination of sulfates content according to norm: chemical analysis of cements	SN EN 196-2 resp. SIA 215.012
	Determination of setting time and soundness	SN EN 196-3 resp. SIA 215.013
	Pozzolanicity Test for Pozzolanic cements	SN EN 196-5 resp. SIA 215.015
	Determination of Fineness	SN EN 196-6 resp. SIA 215.016
	Methods of taking and preparing samples of cement	SN EN 196-7 resp. SIA 215.017
	Determination of heat of hydration; semi-adiabatic method	SN EN 196-9 resp. SIA 215.019
	Determination of tricalcium aluminate content according to national appendix: cement - Composition, specifications and conformity criteria of common cements	SN EN 197-1 resp. SIA 215.002
Additives, admixtures	Determination of fineness by wet sieving - Method of testing fly ash	SN EN 451-2 resp. SIA 162.085
	Determination of water soluble chloride content	SN EN 480-10 resp. SIA 262.180
	Determination of the alkali content of admixtures	SN EN 480-12 resp. SIA 262.182

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Mortar (for masonry)	Determination of the effect on corrosion susceptibility of reinforcing steel by potentiostatic electro-chemical test	SN EN 480-14 resp. SIA 262.184
	Determination of setting time (admixtures for concrete, mortar and grout)	SN EN 480-2 resp. SIA 262.172
Fresh concrete and mortar	Determination of flexural and compressive strength (screed materials)	SN EN 13892-2 resp. SIA 252.004
	Determination of the water content of freshly mixed concrete	SIA 262/1 appendix H resp. SN 505 262/1
	Sampling fresh concrete	SN EN 12350-1 resp. SIA 262.231
	Sieve segregation test (Self-compacting concrete)	SN EN 12350-11 resp. SIA 262.241
	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
	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
	Inclined tube test according to norm: Test methods for grout for prestressing tendons chap. 4.4	SN EN 445 resp. SIA 262.071
	Wick-induced test according to norm: Test methods for grout for prestressing tendons chap. 4.5	SN EN 445 resp. SIA 262.071
Density test according to norm: Test methods for grout for prestressing tendons chap. 4.7	SN EN 445 resp. SIA 262.071	
Sieve test and fluidity test with cone method according to norm: Test methods for grout for prestressing tendons chap. 4.2 and 4.3	SN EN 445 resp. SIA 262.071	



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Concrete structures and elements	Determination of chloride content in hardened concrete - Products and systems for the protection and repair of concrete structures	SN EN 14629 resp. SIA 262.496
	Determination of chloride content in hardened concrete (with X-Ray Fluorescence XRF) - Products and systems for the protection and repair of concrete structures	SN EN 14629 resp. SIA 262.496, modified procedure
Concrete and mortar: in situ tests	Execution and interpretation of the measurement of the cover depths in reinforced concrete structures	In-house procedure
	Measurement of the pull-off strength of finished screeds	SIA 251 resp. SN 567 251, chap. 6.4
	Execution and interpretation of potential measurement on reinforced concrete	SIA guideline 2006
	Measurement of bond strength by pull-off	SN EN 1542 resp. SIA 162.421
(Mineral-) aggregates, sand, gravel, coarse aggregates, crushed stones, filler, unbound materials, etc.	Microbar test - Test methods of reactivity against alkali of aggregates	SIA guideline 2042, appendix E, repealed standard resp. SNR 592042, Anhang D
	Determination of resistance of aggregates to fragmentation	SN EN 1097-2
	Determination of loose bulk density and voids of aggregates	SN EN 1097-3
	Determination of particle density and water absorption of aggregates	SN EN 1097-6
	Determination of acid-soluble sulfates according to norm: Tests for chemical properties of aggregates - Part 1: Chemical analysis	SN EN 1744-1
	Determination of water soluble chloride salts according to norm: Tests for chemical properties of aggregates - Part 1: Chemical analysis	SN EN 1744-1
	Determination of water-soluble sulfates according to norm: Tests for chemical properties of aggregates - Part 1: Chemical analysis	SN EN 1744-1



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	Determination of humic acid content according to norm: Tests for chemical properties of aggregates - Part 1: Chemical analysis	SN EN 1744-1
	Determination of total sulfur content according to norm: Tests for chemical properties of aggregates - Part 1: Chemical analysis	SN EN 1744-1
	Determination of humus content according to norm: Tests for chemical properties of aggregates - Part 1: Chemical analysis	SN EN 1744-1
	Determination of organic components according to norm: Tests for chemical properties of aggregates - Part 1: Chemical analysis	SN EN 1744-1
	Determination of lightweight contaminants according to norm: Tests for chemical properties of aggregates - Part 1: Chemical analysis	SN EN 1744-1
	Determination of acid soluble chloride salts in aggregates	SN EN 1744-5 resp. SN 670 905-5
	Determination of the influence of recycled aggregate extract on the initial setting time of cement	SN EN 1744-6 resp. SN 670 905-6
	Methods for sampling aggregates	SN EN 932-1
	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
	Tests for geometrical properties of aggregates - Classification test for the constituents of coarse recycled aggregate	SN EN 933-11
	Determination of Particle Shape of aggregates - Flakiness Index	SN EN 933-3
	Determination of percentage of crushed and broken surfaces in coarse aggregate particles	SN EN 933-5
	Determination of flow coefficient of aggregates	SN EN 933-6
	Methylene blue test for assessment of fines of aggregates	SN EN 933-9 resp. SN 670 902-9

1) Scope of accreditation type A (fix)

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Soft rocks, soils, ground	Mineralogy and qualitative and quantitative petrography of aggregates and filler	VSS 70 115
	Permeability tests - Geotechnical investigation and testing - Laboratory testing of soil	ISO 17892-11
	Test methods for the determination of the laboratory reference density and water content (unbound and hydraulically bound mixtures). Proctor compaction	SN EN 13286-2
	Test method for the determination of California Bearing ratio, immediate bearing index and linear swelling	SN EN 13286-47
	Qualification test for stabilisation with hydraulic binders according to norm: Hydraulically bound mixtures - Specifications - Part 1: Cement bound granular mixtures - Part 5: Hydraulic road binder bound mixtures	SN EN 14227-1 and 14227-5 resp. SN 640 496
	Identification and classification of soil (USCS classification)	SN EN ISO 14688-1 resp. SN EN ISO 14688-2
	Determination of the water content of soils	SN EN ISO 17892-1
Soils, underground and rocks: in situ tests	Test of swelling due to freeze and CBR test of soils after thaw (CBRF)	VSS 70 321
	Determination of organic matter in soils	VSS 70 370
	EV and ME-plate bearing test (soils)	VSS 70 317
Bituminous binders	Determination of density of soil (nucleometer)	VSS 70 335
	Determination of the penetration index PI according to norm: Specifications for paving grade bitumen	SN EN 12591
	Preparation of test samples	SN EN 12594
	Bitumen recovery: Rotary evaporator	SN EN 12697-3
	Determination of the elastic recovery of modified bitumen	SN EN 13398
	Characterization of perceptible properties	SN EN 1425
	Determination of needle penetration	SN EN 1426
	Determination of softening point Ring and Ball method	SN EN 1427





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Bituminous mixtures	Sampling bituminous binders	SN EN 58
	Dynamic and static indentation test with stamp with a plane section (ETdyn) according to appendix of SN 640 441-NA: Bituminous mixtures - Mastic asphalt, specifications	EN 13108-6 resp. SN 640 441b-NA national appendix G
	Soluble binder content determination of mix asphalt	SN EN 12697-1
	Determination of particle size distribution of bituminous mixtures	SN EN 12697-2
	Indentation using cube or cylindrical specimens (CY)	SN EN 12697-20
	Sampling bituminous mixtures	SN EN 12697-27
	Preparation of samples for determining binder content, water content and grading	SN EN 12697-28
	Determination of the dimensions of a bituminous specimen	SN EN 12697-29
	Specimen preparation by impact compactor	SN EN 12697-30
	Marshall test	SN EN 12697-34
	Method for the determination of the thickness of a bituminous pavement	SN EN 12697-36
	Determination of the maximum density of bituminous mixtures	SN EN 12697-5
	Determination of bulk density of bituminous specimens	SN EN 12697-6
Determination of void characteristics of bituminous specimens	SN EN 12697-8	
Determination of layers adhesion (Leutner)	VSS 70 461, repealed standard	
Road construction and waterproofing: in situ tests	Peeling test (bituminous membranes)	SIA 281/2 resp. SN 564 281/2
	Determination of pull-off bond strength of bituminous membranes	SIA 281/3 resp. SN 573 281/3
	Method for measurement of slip/skid resistance of a surface. The pendulum test - Road and airfield surface characteristics	SN EN 13036-4

1) Scope of accreditation type A (fix)

2) Scope of accreditation type B (flexible)

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Masonry units	Determination of compressive strength (fbk)	SN EN 772-1 resp. SIA 266.101
	Determination of water absorption due to capillary action	SN EN 772-11 resp. SIA 266.111
	Determination of freeze-thaw resistance of calcium silicate masonry units	SN EN 772-18 resp. SIA 266.118

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.

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

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