



Accreditation number **STS 021**
Accreditation standard ISO/IEC 17025:2005

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Testing laboratory for concrete, mortar, aggregates, natural stones, plastic, reinforcing steel, surface protection/repair

LPM AG Labor Prüfung und Materialtechnologie Tannenweg 10 CH-5712 Beinwil am See	Head: Responsible person for MS: Technical head: Telephone: Telefax: E-Mail: Internet: First accreditation (d,m,y): Last accreditation (d,m,y): Updated version:	R. Herren, S. Landert, U. Mühlethaler R. Herren S. Landert +41 62 771 55 55 +41 62 771 55 64 admin@lpm.ch http://www.lpm.ch 21.05.1993 21.08.2007 www.sas.ch (accredited bodies)
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Scope of accreditation in April 2010

Group of products or materials, field of activity	Principle of measurement ²⁾ (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.	Wear test using the grinding wheel according to Böhme	DIN 52108
	Shore A and Shore D hardness test	DIN 53505
	Determination of abrasion, abrasive disk method (Taber)	DIN 53754
	Determination of soluble salts content according to norm	In-house procedure, SOP 517
	Determination of lime content	In-house procedure, SOP 519
	Determination of the sulfate content - total content	In-house procedure, SOP 514
	Determination by ion chromatography IC of ammonium, calcium, potassium, magnesium and sodium content	In-house procedure, SOP 513.3

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<p>Various tests with multiple applications: building materials, buildings, water, wood, plastics, etc.</p>	<p>Determination by ion chromatography IC of chloride, nitrite, nitrate and sulfate content</p>	<p>In-house procedure, SOP 513.2</p>
	<p>Microscopic examination (textural analysis on thin section)</p>	<p>In-house procedure, SOP 301</p>
	<p>Determination of pH</p>	<p>Schweizerisches Lebensmittelbuch SLMB, Kap. 27A</p>
	<p>Sampling, testing and assessing the suitability of water, including water recovered from processes in the concrete industry, as mixing water for concrete</p>	<p>SN EN 1008 resp. SIA 162.157</p>
	<p>Determination of wear resistance-Bohme - Methods of test for screed materials</p>	<p>SN EN 13892-3 resp. SIA 252.005</p>
	<p>Determination of ignition loss according to norm: Determination of the textile-glass and mineral-filler content; calcination methods (plastics)</p>	<p>SN EN ISO 1172</p>
	<p>Determination of moisture content by drying at elevated temperature; Hygrothermal performance of building materials and products</p>	<p>SN EN ISO 12570 resp. SIA 180.214</p>
	<p>Determination of hygroscopic sorption properties according to norm: Hygrothermal performance of building materials and products - Determination of moisture content by drying at elevated temperature</p>	<p>SN EN ISO 12570 resp. SIA 180.214, modified procedure</p>

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(Hardened) concrete	Determination of flexural properties (plastics)	SN EN ISO 178
	Determination of tensile properties (plastics)	SN EN ISO 527
	Determination of pull-off (tension) strength	DIN 1048 Teil 2
	Pore analysis and characterization	In-house procedure, SOP 104
	Determination of the porosity	In-house procedure, SOP 100.1
	Determination of the equivalent flexural tensile strength (metallic fibre reinforced concrete)	Merkblatt "Stahlfaserbeton", Fassung Okt. 2001, Deutscher Beton- und Bautechnik-Verein (DBV), Berlin
	Determination of the freeze resistance FS	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
Flexural strength test of fibre reinforced concrete plate specimens (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	

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Group of products or materials, field of activity	Principle of measurement ²⁾ (characteristics, measuring ranges, type of test)	Test methods, remarks (national, international standards, in-house test methods)
(Hardened) concrete	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 of core test specimens, fast test	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 soundness (+20°C - expansion)	SIA 262/1 appendix F resp. SN 505 262/1, modified procedure
	Determination of soundness (+60°C - alkali bath)	SIA 262/1 appendix F resp. SN 505 262/1, modified procedure
	Determination of the Elastic Moduli	SIA 262/1 appendix G resp. SN 505 262/1
	Determination of the flexural tensile strength according to norm: Betondecken	SN 640 461
	Diagnostic determination of the Freeze-thaw resistance BE I FT according to norm: Betondecken - Prüfmethode zur Bestimmung des Frost- und Frosttaumittelwiderstands Diagnostic determination of the Freeze-thaw resistance BE I F of the Freeze resistance according to norm: Betondecken - Prüfmethode zur Bestimmung des Frost- und Frosttaumittelwiderstands	SN 640 464 SN 640 464

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(Hardened) concrete	Physical determination of the Freeze-thaw resistance BE II FT according to norm: Betondecken - Prüfmethode zur Bestimmung des Frost- und Frosttaumittelwiderstands	SN 640 464
	Physical determination of the Freeze-thaw resistance BE II F of the Freeze resistance according to norm: Betondecken - Prüfmethode zur Bestimmung des Frost- und Frosttaumittelwiderstands	SN 640 464
	Compressive Strength of test specimens	SN EN 12390-3 resp. SIA 262.253
	Determination of Textural 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 162.256
	Determination of the depth of penetration of water under pressure	SN EN 12390-8 resp. SIA 262.258
	Determination of resistance to carbonation - Products and systems for the protection and repair of concrete structures Pore analysis, spacing factor according to norm: Determination of air void characteristics in hardened concrete; Admixtures for concrete, mortar and grout. Test methods	SN EN 13295 resp. SIA 262.466 SN EN 480-11 resp. SIA 262.181, modified procedure

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Cement	Determination of Strength (flexural strength)	SN EN 196-1 resp. SIA 215.011
Fresh concrete and mortar	Determination of Strength (compressive strength)	SN EN 196-1 resp. SIA 215.011
	Determination of the water content of freshly mixed concrete	SIA 262/1 appendix H resp. SN 505 262/1
	Determination of water-soluble chloride content of fresh mortars - mortar for masonry	SN EN 1015-17 resp. SIA 177.167
	Slump test	SN EN 12350-2 resp. SIA 162.232
	Determination of degree of compactability	SN EN 12350-4 resp. SIA 162.234
	Flow table test	SN EN 12350-5 resp. SIA 162.235
	Determination of Density	SN EN 12350-6 resp. SIA 162.236
	Determination of air content; Pressure methods	SN EN 12350-7 resp. SIA 162.237
Concrete structures and elements	Determination of carbonation depth in hardened concrete (microscopic)	SIA 162/3 resp. SN 562 162/3, norme abrogée
	Taking, examining and testing in compression cored specimens of concrete in structures	SN EN 12504-1 resp. SIA 162.213
	Determination of resistance of capillary absorption - Products and systems for the protection and repair of concrete structures	SN EN 13057 resp. SIA 162.463

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Concrete structures and elements	<p>Determination of chloride content in hardened concrete - Products and systems for the protection and repair of concrete structures (hot water dilution)</p> <p>Determination of chloride content in hardened concrete (nitric acid digestion) - Products and systems for the protection and repair of concrete structures</p> <p>Determination of carbonation depth in hardened concrete by the phenolphthalein method - Products and systems for the protection and repair of concrete structures</p> <p>Tensile testing according to norm: Test methods of reinforcing bar, wire rod and wire</p> <p>Determination of the shear force of knots of welded fabric according to norm: Test methods of welded fabric (reinforcement)</p>	<p>SN EN 14629 resp. SIA 262.496, modified procedure</p> <p>SN EN 14629 resp. SIA 262.496</p> <p>SN EN 14630 resp. SIA 262.495</p> <p>SN EN ISO 15630-1 resp. SIA 162.021</p> <p>SN EN ISO 15630-2</p>
Concrete and mortar: in situ tests	Determination of pull-off bond strength	ZTV-ING - Zusätzliche technische Vertragsbedingungen und Richtlinien für Ingenieurbauten. Verkehrsblatt-Verlag 2003, Stand 07/06
Protection and coating systems, coating materials, paints, impregnations, hydrophobics	Determination and classification of liquid-water transmission rate (permeability) of coating materials and coating system	SN EN 1062-3

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Protection and coating systems, coating materials, paints, impregnations, hydrophobics	<p>Determination of the water absorption coefficient according to norm: Determination and classification of liquid-water transmission rate (permeability) of coating materials and coating system</p> <p>Determination of carbon dioxide permeability</p> <p>Determination of crack bridging properties</p> <p>Determination of compressive strength of repair mortar (Products and systems for the protection and repair of concrete structures)</p> <p>Determination of shrinkage and expansion</p> <p>Determination of modulus of elasticity in compression (Products and systems for the protection and repair of concrete structures)</p> <p>Determination of thermal compatibility - Part 1: Freeze-thaw cycling with de-icing salt immersion</p> <p>Determination of thermal compatibility - Part 2: Thunder-shower cycling (thermal shock)</p> <p>Measurement of bond strength by pull-off</p>	<p>SN EN 1062-3, modified procedure</p> <p>SN EN 1062-6</p> <p>SN EN 1062-7, modified procedure</p> <p>SN EN 12190 resp. SIA 162.450</p> <p>SN EN 12617-4 resp. SIA 162.459</p> <p>SN EN 13412 resp. SIA 262.468</p> <p>SN EN 13687-1 resp. SIA 162.471</p> <p>SN EN 13687-2 resp. SIA 162.472</p> <p>SN EN 1542 resp. SIA 162.421</p>

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Protection and coating systems, coating materials, paints, impregnations, hydrophobics	<p>Determination of the coefficient of thermal expansion of protection systems and repair products</p> <p>Measurement of coating thickness. Microscopical method</p> <p>Cross-cut test (Paints and varnishes)</p> <p>Determination and classification of water-vapour transmission rate (permeability) of coating materials and coating system</p>	<p>SN EN 1770 resp. SIA 162.428</p> <p>SN EN ISO 1463, modified procedure</p> <p>SN EN ISO 2409</p> <p>SN EN ISO 7783-2, modified procedure</p>
(Mineral-) aggregates, sand, gravel, coarse aggregates, crushed stones, filler, unbound materials, etc.	<p>Determination of particle size distribution of aggregates - Sieving Method</p> <p>Determination of Particle Shape of aggregates - Flakiness Index</p>	<p>SN EN 933-1 resp. SN 670 902-1</p> <p>SN EN 933-3 resp. SN 670 902-3</p>
Rocks, natural stones	<p>Determination of flexural strength under concentrated load</p> <p>Petrographic examination of natural stone</p> <p>Determination of compressive strength of natural stone</p>	<p>SN EN 12372 resp. SIA 246.206</p> <p>SN EN 12407 resp. SIA 246.207, modified procedure</p> <p>SN EN 1926 resp. SIA 246.202</p>

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