



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 0455

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

Ugra
Schweizer Kompetenzzentrum
für Druck- und Medientechnik
Prüflabor
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Initial accreditation: 02.03.2006
Current accreditation: 02.03.2021 to 01.03.2026
Scope of accreditation see: www.sas.admin.ch
(Accredited bodies)

Scope of accreditation as of 22.12.2023

Testing laboratory for tests on materials and products from the printing, paper and packaging industry as well as security printing

| 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) |
|---|---|--|
| Paper, security paper | Bursting strength Bending resistance Accelerated ageing Thickness Double fold number according to Schopper Tearing resistance (Elmendorf method) E-modulus / tensile test Grammage Gloss measurement (Measurement angle 20°, 75°) Air permeance (Bendtsen) | ISO 2758, ISO 3689 (wet) ISO 2493, ISO 5628 ISO 5630-1, -3, -4 ISO 534, ISO 12625-3 ISO 5626 ISO 1974 ISO 1924-2 ISO 536, 12625-6 ISO 8254-1 ISO 5636-3 |



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|--|--|---|
| Paper, security paper | Sampling Sample pretreatment Pull test (Ugra) pH-value (cold and hot extraction) Evidence of PVOH/PVA Roughness (Bendtsen) Friction behaviour (static and sliding friction) ISO Brightness (Whiteness), CIE Whiteness, Reflection factor, Opacity CIE Lab, Remission Water absorptiveness (Cobb) Curl of paper Tensile test IGT crumpling test (Crumpling of paper or banknotes) Residue (Ash content) Determination of the number of security fibres | ISO 186, FEFCO 1 ISO 187, ISO 139 SOP 2035 ISO 6588-1, -2 SOP 2076 ISO 8791-2 ISO 15359 ISO 2470, 2471, 2469, 11475, 11476, 3688, 5631, EN 12625-7 ISO 535 ISO 11556, 14968 ISO 1924-2, ISO 3781, EN 12625-4 SOP 2092, IGT 11.02 ISO 2144 SOP 2090 |
| Corrugated board | Bursting strength Accelerated ageing Thickness Puncture test Grammage Flat crush resistance (FCT) Edgewise crush resistance (ECT) Ring crush resistance (RCT) Compression and stacking test (BCT) Water absorptiveness (Cobb) Water resistance of the glue bond | ISO 2759, ISO 3689 (wet), FEFCO 4 ISO 5630-1, -3, -4 ISO 534, FEFCO 3 ISO 3036, FEFCO 5 ISO 3039, FEFCO 2, FEFCO 10 EN ISO 3035, FEFCO 6 ISO 3037, FEFCO 8 ISO 12192 FEFCO 50, SOP 2022 ISO 535, FEFCO 7 ISO 3038, FEFCO 9 |



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|--|--|--|
| Banknotes | <p>Lifetime simulation test:</p> <ul style="list-style-type: none"> – Soiling of banknotes in the dirt bath (STM1) – Crumpling of banknotes (LT1) – Abrasion and roughening of banknotes (STM1) – Determination of the limpness of banknotes (BLA) – Inspection of banknotes under infrared, UV and visible light (optical soiling analysis) <p>Resistance to chemicals</p> <p>Pelican test (varnishing)</p> <p>Detection of magnetic ink</p> <p>Tesa-test OVD</p> <p>IGT crumpling test</p> <p>Abrasion resistance of security features (Prüfbau)</p> <p>Light resistance/colour fastness to artificial light (xenon arc light, D65)</p> | SOP 2060 SOP 2061 SOP 2062 SOP 2063 SOP 2070 SOP 2088 SOP 2086 SOP 2087 SOP 2089 SOP 2092, IGT 11.02 SOP 2077 SN EN ISO-105 B02, SOP 2058 |
| Films, plastic films | Thickness Puncture test Dart-Drop (Impact test) Grammage Friction behaviour (static and sliding friction) Transparency Tear propagation test Tensile test | ISO 4593 SOP 2081 ISO 7765-1, ASTM D1709, SOP 2084 DIN 53365 ISO 8295 SOP 2083 ISO 11897 ISO 527-1, -3 |
| Self-adhesive labels | Light resistance/colour fastness to artificial light (xenon arc light, D65) Determination of adhesive strength (180° pull-off angle) | SN EN ISO 105-B02, SOP 2058 FINAT FTM1, FTM4 |



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|--|---|---|
| Self-adhesive labels | Ageing resistance / environmental simulation in the climate and heating cabinet | SOP 2091 |
| Waste bag inspection according to OKS guideline | Sample preparation | SOP 2080 |
| | Puncture test | SOP 2081 |
| | Determination of dimensions | SOP 2082 |
| | Determination of the maximum tensile force | SOP 2085 |
| Carrier bags and bags | Lifting test on carrier bags | SOP 2011 |
| | Static hanging test on carrier bags | SOP 2067 |
| | Shock test on carrier bags | SOP 2068 |
| | Dart-Drop (Impact test) | ISO 7765-1, ASTM D1709, SOP 2084 |
| Packaging | Vertical impact test by dropping (Box crash test) | ISO 2248 |
| | Compression and stacking test (Box compression test) | SOP 2022 |
| | Environmental simulation in the climate chamber | SOP 2091, Order related |
| | Adhesive strength (180° pull-off angle) | FINAT FTM1, FTM4 |
| Prints and printing inks | Light resistance/colour fastness to artificial light (xenon arc light, D65) | SN EN ISO 105-B02, SOP 2058 |
| | Colorimetric measurement | ISO 5631-2, 13655 |
| | Abrasion resistance (Prüfbau) | SOP 2077 |

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



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| Abbreviation | Signification |
|--------------|--|
| ASTM | American Society for Testing and Materials |
| CIE | Commission internationale de l'éclairage - International Lighting Commission |
| FEFCO | Fédération Européenne des Fabricants de Carton Ondule (obsolete ref.; today: European Federation of Corrugated Board Manufacturers) |
| FINAT | Fédération Internationale des Fabricants et Transformateurs d'adhesifs et thermocollants sur papiers et autres support |
| FTM | FINAT-Test methods |
| IGT | Institute for the Graphic Techniques |
| OKS | Offizieller Kehrichtsack, Official waste bag |
| SOP | Standard Operating Procedure |
| TAPPI | Technical Association for the world-wide Pulp, Paper and converting Industry |

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