

**ISO standards recommended by NSP (replaces withdrawn SCAN-test Methods)**

SCAN-test has withdrawn approximately 108 SCAN-test Methods and recommends instead the use of the corresponding ISO standards (and SS-EN standards) as stated in the lists below. The reason for the withdrawals is that trade with pulp and paper products nowadays is international and hence the product related properties should be measured using international standards.

**ISO standards for pulps**

ISO	Title	Withdrawn SCAN
302	Determination of Kappa number	C 1:00
638	Determination of dry matter content (EN 20638)	C 3:78
692	Determination of alkali solubility	C 2:61
699	Determination of alkali resistance	C 34:80
777	Determination of calcium (Paper, board and pulp)	C 10:62
778	Determination of copper (Paper, board and pulp)	CM 12:87
779	Determination of iron (Paper, board and pulp)	CM 13:87
1762	Determination of residue (ash) on ignition at 525 degrees C (Paper, board and pulp)	C 6:62
1830	Paper, board and pulps – Determination of acid-soluble manganese	CM 14:05
2144	Determination of residue (ash) on ignition at 900 degrees C (Paper, board and pulp)	P 5:63
3260	Determination of chlorine consumption (Degree of delignification)	C 29:72
4119	Determination of stock concentration (EN ISO 4119)	C17:64/M 1:64
5263-1	Laboratory wet disintegration – Part 1: Disintegration of chemical pulps (EN ISO 5263-1)	C 18:65
5263-2	Laboratory wet disintegration – Part 2: Disintegration of mechanical pulps at 20 degrees C (EN ISO 5263-2)	M 2:64
5263-3	Laboratory wet disintegration – Part 3: Disintegration of mechanical pulps at >85 degrees C (EN ISO 5263-3)	M 10:77
5264-1	Laboratory beating – Part 1: Valley beater method	C 25:96
5264-2	Laboratory beating – Part 2: PFI mill method (EN 25264-2)	C 24:96
5267-1	Determination of drainability – Part 1: Schopper-Riegler method (EN ISO 5267-1)	C 19:65/M 3:65
5267-2	Determination of drainability – Part 2: "Canadian Standard" freeness method	C 12:65/M 4:65
5269-1	Preparation of laboratory sheets for physical testing – Part 1: Conventional sheet-former method (EN ISO 5269-1)	CM 26:99/M 5:76
5269-3	Pulps – Preparation of laboratory sheets for physical testing – Part 3: Conventional and Rapid-Köthen sheet formers using a closed water system	CM 64:00
5270	Laboratory sheets – Determination of physical properties (EN ISO 5270)	C 28:76/M 8:76/ C 36:84
5351	Determination of limiting viscosity number in CED solution	CM 15:99/C 16:62
6587	Determination of conductivity of aqueous extracts	P 15:90
6588-1	Paper, board and pulps – Determination of pH of aqueous extracts – Part 1: Cold extraction	P 14:65
6588-2	Paper, board and pulps – Determination of pH of aqueous extracts – Part 2: Hot extraction	P 14:65
9184-1	Paper, board and pulps – Fibre furnish analysis – Part 1: General method	G 3:90/G 4:90
9184-2	Paper, board and pulps – Fibre furnish analysis – Part 2: Staining guide	G 3:90G 4:90
9184-3	Paper, board and pulps – Fibre furnish analysis – Part 3: Herzberg staining test	G 3:90/G 4:90

ISO	Title	Withdrawn SCAN
9184-4	Paper, board and pulps – Fibre furnish analysis – Part 4: Graff "C" staining test	G 3:90/G 4:90
9184-5	Paper, board and pulps – Fibre furnish analysis – Part 5: Lofton-Merritt staining test (modification of Wisbar)	G 3:90/G 4:90
9184-6	Paper, board and pulps – Fibre furnish analysis – Part 6: Determination of fibre coarseness	G 3:90/G 4:90
9184-7	Paper, board and pulps – Fibre furnish analysis – Part 7: Determination of weight factor	G 3:90/G 4:90
9197	Determination of water-soluble chlorides (Paper, board and pulps)	CM 56:90/P 75:96
11480	Pulp, paper and board – Determination of total chlorine and organically bound chlorine	CM 51:94/P 68:94 CM 52:94/P 69:94
14487	Standard water for physical testing	CM 58:95

#### ISO standards for paper and board

ISO	Title	Withdrawn SCAN
186	Sampling to determine average quality (EN ISO 186)	P 1
187	Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples (EN 20187)	P 2:75
287	Determination of moisture content – Oven-drying method (EN 20287)	P 4:63
534	Determination of thickness and apparent bulk density or apparent sheet density (EN 20534)	P 7:96
535	Determination of water absorptiveness – Cobb method (EN 20535)	P 12:64
536	Determination of grammage (EN ISO 536)	P 6:75
1762	Determination of residue (ash) on ignition at 525 degrees C (Paper, board and pulp)	C 6:62
1830	Paper, board and pulps – Determination of acid-soluble manganese	CM 14:05
1924-2	Determination of tensile properties – Part 2: Constant rate of elongation method (EN ISO 2924-2)	P 38:80
ISO 1924-3	Paper and board – Determination of tensile properties – Part 3: Constant rate of elongation method (100 mm/min)	P 67:93
1974	Determination of tearing resistance (Elmendorf method) (EN 21974)	P 11:96
2144	Determination of residue (ash) on ignition at 900 degrees C	P 5:63
2528	Determination of water vapour transmission rate – Gravimetric (dish) method	P 22:68
2758	Paper – Determination of bursting strength	P 24:99
2759	Board – Determination of bursting strength	P 25:81
3034	Corrugated fibreboard – Determination of thickness	P 31:71
3035	Single-faced and single-wall corrugated fibreboard – Determination of flat crush resistance (EN 203035)	P 32:71
3036	Board – Determination of puncture resistance	P 23:68
3037	Corrugated fibreboard – Determination of edgewise crush resistance (Unwaxed edge method) (EN ISO 3037)	P 33:71
3783	Paper and board – Determination of resistance to picking – Accelerated speed method using the IGT-type tester (electric model)	P 63:90
5626	Determination of folding endurance (Paper)	P 17:77
5629	Determination of bending stiffness – Resonance method	P 64:90

ISO	Title	Withdrawn SCAN
5636-3	Paper and board – Determination of air permeance (medium range) – Part 3: Bendtsen method	P 60:87
5636-5	Paper and board – Determination of air permeance and air resistance (medium range) – Part 5: Gurley method	P 19:78
6587	Determination of conductivity of aqueous extracts	P 15:90
6588-1	Paper, board and pulps – Determination of pH of aqueous extracts – Part 1: Cold extraction	P 14:65
6588-2	Paper, board and pulps – Determination of pH of aqueous extracts – Part 2: Hot extraction	P 14:65
7263	Corrugating medium – Determination of the flat crush resistance after laboratory fluting (EN ISO 7263)	P 27:69
8226-1	Measurement of hygroexpansivity – Part 1: Hygroexpansivity up to a maximum relative humidity of 68 %	P 28:88
8226-2	Measurement of hygroexpansivity – Part 2: Hygroexpansivity up to a maximum relative humidity of 86 %	P 28:88
8787	Determination of capillary rise – Klemm method	P 13:64
8791-2	Determination of roughness/smoothness (air leak methods) – Part 2: Bendtsen method	P 21:67
8791-4	Determination of roughness/smoothness (air leak methods) – Part 4: Print-surf method	P 76:95
9184-1	Paper, board and pulps – Fibre furnish analysis – Part 1: General method	G 3:90/G 4:90
9184-2	Paper, board and pulps – Fibre furnish analysis – Part 2: Staining guide	G 3:90/G 4:90
9184-3	Paper, board and pulps – Fibre furnish analysis – Part 3: Herzberg staining test	G 3:90/G 4:90
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9184-5	Paper, board and pulps – Fibre furnish analysis – Part 5: Lofton-Merritt staining test (modification of Wisbar)	G 3:90/G 4:90
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9197	Determination of water-soluble chlorides (Paper, board and pulps)	P 75:96/CM 56:96
11480	Pulp, paper and board – Determination of total chlorine and organically bound chlorine	CM 51:94/P 68:94 CM 52:94/P 69:94
9895	Compressive strength – Short span test	P 46:83
9932	Determination of water vapour transmission rate of sheet materials – Dynamic sweep and static gas methods	No SCAN
12192	Compressive strength – Ring crush method	P 34:71

#### ISO standards for optical properties (Paper, board and/or pulps)

ISO	Title	Withdrawn SCAN
2469	Measurement of diffuse reflectance factor	G 1:92
2470	Measurement of diffuse blue reflectance factor (ISO brightness)	P 3:93
2471	Determination of opacity (paper backing) – Diffuse reflectance method	P 8:93
5631	Determination of colour (C/2 degrees) – Diffuse reflectance method	P 71:95

ISO	Title	Withdrawn SCAN
5631-2	Paper and board – Determination of colour by diffuse reflectance – Part 2: Outdoor daylight conditions (D65/10 degrees)	P 72:95
9416	Determination of light scattering and absorption coefficients (using Kubelka-Munk theory)	P 8:93
11475	Determination of CIE whiteness, D65/10 degrees (outdoor daylight)	P 66:93
11476	Determination of CIE-whiteness, C/2 degree (indoor illumination conditions)	No SCAN
8254-1	Measurement of specular gloss – Part 1: 75 degree gloss with a converging beam, TAPPI method	No SCAN
8254-2	Measurement of specular gloss – Part 2: 75 degree gloss with a parallel beam, DIN method	No SCAN
8254-3	Measurement of specular gloss – Part 3: 20 degree gloss with a converging beam, TAPPI method (not yet published)	No SCAN

#### Standards for tissue paper and tissue products

EN	Title	Withdrawn SCAN
12625-1	Part 1: Guidance of terms	No SCAN
12625-3	Part 3: Thickness, bulking thickness and apparent bulk density	P 47:83
12525-4	Part 4: Tensile strength, stretch at break and tensile energy absorption	P 44:81
12625-5	Part 5: Wet tensile strength	P 58:86
12625-6	Part 6: Grammage	No SCAN
12625-7	Part 7: Optical properties	No SCAN
12625-8	Part 8: Water-absorption time and water-absorption capacity, basket-immersion test method	P 62:88
12625-9	Part 9: Ball burst strength	No SCAN
12625-10	Part 10: Water absorption rate and water absorption capacity (in preparation)	P 62:88

EN 12625-2 has been cancelled. Sampling will be carried out in accordance with ISO 186.

#### ISO, EN ISO or EN standards for waste waters

Standard	Title	Withdrawn SCAN
8467	Water quality – Determination of permanganate index (EN ISO 8467)	W 1:66
7980	Water quality – Determination of calcium and magnesium - AAS method (EN ISO 7980)	W 2:67
SS 28113	Determination of dry matter and ignition residue in water, sludge and sediment	W 3:68
EN 1899-1	Water quality – Determination of biochemical oxygen demand after n days (BOD)	W 5:71
EN 1899-2	Part 1: Dilution and seeding method with allythiourea addition Part 2: Method for undiluted samples	W 5:71
EN 872	Water quality – Determination of suspended solids – Method by filtration through glass fiber filters	W 6:71
10695	Water quality – Determination of selected organic nitrogen and phosphorus compounds – Gas chromatography method (EN ISO 10695)	W 8:73
EN 1485	Water quality – Determination of absorbable organically bound halogens (AOX)	W 9:89

**Recommendations for other standards or methods**

<b>Standard</b>	<b>Title</b>	<b>Withdrawn SCAN</b>
TAPPI T 558 pm -95	Surface wettability and absorbency of sheeted materials using an automated contact angle tester	P 18:66
ASTM D 5725 -95	Standard Test Method for Surface Wettability and Absorbency of Sheeted Materials Using an Automated Contact Angle Tester	P 18:66

ISO and EN Standards (SS-EN, NS-EN and SFS-EN) can be ordered from

*Sweden*

SIS Förlag

Tel: +46 8 555 523 10

Fax: +46 8 555 523 11

E-mail: sis.sales@sis.se

*Norway*

Pronorm

Tel: +47 67 83 87 00

Fax: +47 67 83 87 01

E-mail: pronorm@standard.no

*Finland*

SFS-Standardisointi

Tel: +358 9 149 9331

Fax: +358 9 146 4925

E-mail: sfs@sfs.fi