

TAPPI Standards compared to Related Standards of ISO and ASTM (revised August 2011)

NOTE: “Related” does not imply “equivalence.” A “Related Standard” may be a standard for a similar property, but this should not assume identical technical content or matching results.

TAPPI Number and Title	ISO	ASTM
Fibrous Materials and Pulp Testing		
T 200 Laboratory Beating of Pulp (Valley Beater Method)	5264	
T 204 Solvent Extractives of Wood and Pulp	624	D 1107, D 1108
T 205 Forming Handsheets for Physical Tests of Pulp	5263, 5269/1	
T 207 Water Solubility of Wood and Pulp		D 1110
T 210 Sampling and Testing Wood Pulp Shipments for Moisture	7213, 801/1, 801/2	
T 211 Ash in Wood, Pulp, Paper, and Paperboard: Combustion at 525°C	1762	D 1102
T 212 One Percent Sodium Hydroxide Solubility of Wood and Pulp	699	D 1109
T 213 Dirt in Pulp	5350/1, 5350/2	
T 218 Forming Handsheets for Reflectance Testing of Pulp (Büchner Funnel Procedure)	5269-1	
T 220 Physical Testing of Pulp Handsheets	5270	
T 221 Drainage Time of Pulp	5267-1, 5267-2	
T 222 Acid Insoluble Lignin in Wood and Pulp		D 1106
T 223 Pentosans in Wood and Pulp		
T 226 Specific External Surface of Pulp		
T 227 Freeness of Pulp (Canadian Standard Method)	5267/2	
T 230 Viscosity of Pulp (Capillary Viscometer Method)	5351/1	
T 231 Zero-Span Breaking Strength of Pulp (Dry Zero-Span Tensile)	15361	D 5804
T 232 Fiber Length of Pulp by Projection	16065-1, 16065-2	
T 233 Fiber Length of Pulp by Classification	16065-1, 16065-2	
T 234 Coarseness of Pulp Fibers		
T 235 Alkali Solubility of Pulp at 25°C	692	
T 236 Kappa Number of Pulp	302	
T 237 Carboxyl Content of Pulp		D 1926
T 240 Consistency (Concentration) of Pulp Suspensions	4119	
T 244 Acid-Insoluble Ash in Wood, Pulp, Paper, and Paperboard	776	D 586
T 245 Silicates and Silica in Pulp (Wet Ash Method)		D 2438
T 248 Laboratory Beating of Pulp (PFI Mill Method)	5264/2	
T 249 Carbohydrate Composition of Extractive-Free Wood and Wood Pulp by Gas-Liquid Chromatography		D 1915
T 252 pH and Electrical Conductivity of Hot Water Extracts of Pulp, Paper, and Paperboard	6587, 6588	
T 254 Cupriethylenediamine Disperse Viscosity of Pulp (Falling Ball Method)	5351/1	
T 255 Water Soluble Sulfates in Pulp and Paper	9198	
T 256 Water Soluble Chlorides in Pulp and Paper	9197/1, 9197/2	
T 257 Sampling and Preparing Wood for Analysis		
T 258 Basic Density and Moisture Content of Pulpwood		
T 259 Species Identification of Nonwood Plant Fibers		
T 261 Fines Fraction by Weight of Paper Stock by Wet Screening	10376	
T 262 Preparation of Mechanical Pulps for Testing	5263-2, 5263-3	ISO 5263-3??
T 263 Identification of Wood Fibers from Conifers		
T 264 Preparation of Wood for Chemical Analysis		D 1105
T 265 Natural Dirt in Wood Chips		
T 266 Determination of Sodium, Calcium, Copper, Iron, and Manganese in Pulp and Paper by Atomic Absorption Spectroscopy	777, 778, 779	
T 267 Compression Wood Identification in Pulpwood		
T 268 Weight-Volume Measurement of Pulpwood		
T 271 Fiber Length of Pulp and Paper by Automated Optical Analyzer Using Polarized Light	16065-1	
T 272 Forming Handsheets for Reflectance Testing of Pulp (Sheet Machine Procedure)	3688	

T 274	Laboratory Screening of Pulp (MasterScreen-Type Instrument)		
T 275	Screening of Pulp (Somerville-Type Equipment)		
T 277	Macro Stickies Content in Pulp: the "Pickup" Method		D 6148
T 278	Pulp Screening (Valley-Type Screening Device)		
T 280	Acetone Extractives of Wood and Pulp		D 1107, D 1108
T 281	Open Drum Washer Mat Sampling Technique		
T 282	Hexeneuronic Acid Content of Chemical Pulp		

Paper and Paperboard Testing

T 400	Sampling and Accepting a Single Lot of Paper, Paperboard, Fiberboard, or Related Product	186	D 585
T 401	Fiber Analysis of Paper and Paperboard	9184 (5 parts)	D 1030
T 402	Standard Conditioning and Testing Atmospheres for Paper, Board, Pulp Handsheets, and Related Products	187	D 685
T 403	Bursting Strength of Paper	2758	D 774
T 404	Tensile Breaking Strength and Elongation of Paper and Paperboard (Using Pendulum Type Tester)	1924/1	
T 405	Petroleum Wax in Impregnated Papers		D 590
T 406	Reducible Sulfur in Paper and Paperboard		D 984
T 408	Rosin in Paper and Paperboard		
T 409	Machine Direction of Paper and Paperboard		D 528
T 410	Grammage of Paper and Paperboard (Weight Per Unit Area)	536	D 646
T 411	Thickness (Caliper) of Paper, Paperboard, and Combined Board	534, 3034	D 645
T 412	Moisture in Paper and Paperboard	287	D 644
T 413	Ash in Wood, Pulp, Paper and Paperboard: Combustion at 900°C	2144	D 586
T 414	Internal Tearing Resistance of Paper (Elmendorf Type Method)	1974	D 689
T 418	Organic Nitrogen in Paper and Paperboard		
T 419	Starch in Paper		D 591
T 423	Folding Endurance of Paper (Schopper Type Tester)	5626	D 643
T 425	Opacity of Paper (15/d geometry, Illuminant A/2°, 89% Reflectance Backing and Paper Backing)	2471	D 589
T 428	Hot Water Extractable Acidity or Alkalinity of Paper		D 548
T 429	Alpha-Cellulose in Paper		D 588
T 430	Copper Number of Pulp, Paper, and Paperboard		D 919
T 431	Ink Absorbency of Blotting Paper		D 2177
T 432	Water Absorbency of Bibulous Papers		D 824
T 433	Water Resistance of Sized Paper and Paperboard (Dry Indicator Method)		D 779
T 434	Acid-Soluble Iron in Paper	779	
T 435	Hydrogen Ion Concentration (pH) of Paper Extracts (Hot Extraction Method)	6588	D 778
T 437	Dirt in Paper and Paperboard		D 2019
T 438	Zinc and Cadmium in Paper		D 1224
T 441	Water Absorptiveness of Sized (Non-bibulous) Paper, Paperboard, and Corrugated Fiberboard (Cobb Test)	535	D 3285
T 444	Silver Tarnishing by Paper and Paperboard		D 2043
T 448	Water Vapor Transmission Rate of Paper and Paperboard at 23°C and 50% RH	2528	E 96, E 398
T 449	Bacteriological Examination of Paper and Paperboard	8784/1	
T 452	Brightness of Pulp, Paper, and Paperboard (Directional Reflectance at 457 nm)	2469,2470	D 985
T 453	Effect of Dry Heat on Properties of Paper and Board	5630/1	D 776
T 454	Turpentine Test for Voids in Glassine and Greaseproof Papers	5634	
T 455	Identification of Wire Side of Paper		D 5039
T 456	Wet Tensile Breaking Strength of Paper and Paperboard ("Wet Tensile Strength")		D 829
T 458	Surface Wettability of Paper (Angle of Contact Method)		D 724
T 459	Surface Strength of Paper (Wax Pick Test)		D 2482
T 460	Air Resistance of Paper (Gurley Method)	5636-5	D 726
T 461	Flame Resistance of Treated Paper and Paperboard		D 777
T 462	Castor Oil Penetration Test for Paper		D 780

T 464	Water Vapor Transmission Rate of Paper and Paperboard at High Temperature and Humidity	2528	E 96, E 398
T 465	Static Creasing of Paper for Water Vapor Transmission Tests	2528	
T 476	Abrasion Loss of Paper and Paperboard (Taber-Type Method)		
T 479	Smoothness of Paper (Bekk Method)	5627	
T 480	Specular Gloss of Paper and Paperboard at 75°	8254-1	D 1223
T 483	Odor of Packaging Materials		
T 487	Fungus Resistance of Paper and Paperboard		D 2020
T 489	Bending Resistance (Stiffness) of Paper and Paperboard (Taber-type Tester in Basic Configuration)	2493	D 5342
T 491	Water Immersion Test of Paperboard	5637	
T 493	Identification and Determination of Melamine Resin in Paper		D 1597
T 494	Tensile Properties of Paper and Paperboard (Using Constant Rate of Elongation Apparatus)	1924/2	D 828
T 496	Specimen Preparation for Cross Directional Internal Tearing Resistance for Paper, Paperboard and Related Materials		
T 500	Book Bulk and Bulking Number of Paper		D 2175
T 502	Equilibrium Relative Humidity of Paper and Paperboard		
T 504	Glue in Paper (Qualitative and Quantitative Determination)		
T 507	Grease Resistance of Flexible Packaging Materials	5634	F 119
T 509	Hydrogen Ion Concentration (pH) of Paper Extracts (Cold Extraction Method)	6588	D 778
T 511	Folding Endurance of Paper (MIT Tester)	5626	D 2176
T 512	Creasing of Flexible Packaging Material Paper Specimens for Testing		F119 D1729
T 515	Visual Grading and Color Matching of Paper		
T 516	Envelope Seal, Seam, and Window Patch Testing		
T 519	Diffuse Opacity of Paper (d/0 paper backing)	2471	
T 520	Curl of Gummed Flat Papers		
T 523	Dynamic Measurement of Water Vapor Transfer Through Sheet Materials		E 96, F 372
T 524	Color of paper and paperboard (45/0, C/2)		
T 525	Diffuse Brightness of Pulp (d/0)	2469, 3688	
T 526	Blister Resistance of Coated Paper in Heatsset Printing		
T 527	Color of paper and paperboard (d/0, C/2)		
T 529	Surface pH Measurement of Paper		
T 530	Size Test for Paper by Ink Resistance (Hercules-Type Method)		
T 531	Starch Consumption in Corrugated Board (Enzymatic/Gravimetric Method)		
T 532	Starch Consumption in Corrugated Board (Enzymatic/Colorimetric Method)		
T 534	Brightness of Clay and Other Mineral Pigments (d/0)		
T 536	Resistance of Paper to Passage of Air (High Pressure Gurley Method)	5636/3	D 726
T 537	Dirt Count in Paper and Paperboard (Optical Character Recognition – OCR)		
T 538	Smoothness of Paper and Paperboard (Sheffield Method)	8791/3	
T 541	Internal Bond Strength of Paperboard (Z-Direction Tensile)		
T 543	Bending Resistance of Paper (Gurley-Type Tester)	5628	D 6125
T 544	Effect of Moist Heat on Properties of Paper and Board	5630/3	D 4714
T 545	Cross-Machine Grammage Profile Measurement (Gravimetric Method)		
T 546	Machine Direction Grammage Variation Measurement (Gravimetric Method)		
T 547	Air Permeance of Paper and Paperboard (Sheffield Method)	5636-4	
T 549	Coefficients of Static and Kinetic Friction of Uncoated Writing and Printing Paper by Use of the Horizontal Plane Method	15359	D 4917
T 550	Determination of Equilibrium Moisture in Pulp, Paper and Paperboard for Chemical Analysis	287	D 644
T 551	Thickness of Paper and Paperboard (Soft Platen Method)	534	D 645
T 552	Determination of Wetting Tension of Polymeric Films and Coated Surfaces via the Mayer Rod Technique		
T 553	Alkalinity of Paper as Calcium Carbonate (Alkaline Reserve of Paper)		D 4988

T 555	Roughness of Paper and Paperboard (Print-Surf Method)	8791/4	
T 556	Bending Resistance of Paper and Paperboard (Lorentzen & Wettre Type Tester)	2493	
T 558	Surface Wettability and Absorbency of Sheeted Materials Using an Automated Contact Angle Tester		D 724
T 559	Grease Resistance Test for Paper and Paperboard		D 722
T 560	CIE Whiteness and Tint of Paper and Paperboard (Using d/0, Diffuse Illumination and Normal Viewing)	11475	E 313
T 562	CIE Whiteness and Tint of Paper and Paperboard (Using 45/0 Directional Illumination and Normal Viewing)		E 313
T 563	Equivalent Black Area (EBA) and Count of Visible Dirt in Pulp, Paper and Paperboard by Image Analysis		D 6101
T 564	Transparent Chart for the Estimation of Defect Size	5350/3	
T 566	Bending Resistance (Stiffness) of Paper (Taber-type Tester in 0 to 10 Taber Stiffness Unit Configuration)	2493	D 5650
T 567	Determination of Effective Residual Ink Concentration (ERIC) by Infrared Reflectance Measurement	22754	D 1193
T 568	Physical Area of Sub-Visible Contraries in Pulp, Paper and Paperboard by Image Analysis		
T 569	Internal Bond Strength (Scott Type)		
T 570	Resistance to Mechanical Penetration of Sanitary Tissue Paper (Ball Burst Procedure)		D 6548
T 571	Diffuse Brightness of Paper and Paperboard (d/0) (T 571 withdrawn in 2006)	2469, 2470	
T 572	Accelerated Pollutant Aging of Printing and Writing Paper by Pollution Chamber Exposure Apparatus		D 6833
T 573	Accelerated Temperature Aging of Printing and Writing Paper by Dry Oven Exposure Apparatus		D 6819
T 574	Wax in Pulp, Paper and Paperboard		D 590
T 575	Roughness of Paper and Paperboard, Stylus (Emveco-Type) Method		
T 576	Tensile Properties of Towel and Tissue Products (Using Constant Rate of Elongation Apparatus)	12625-4	
T 577	Score Bend Test		

Nonfibrous Materials Testing

T 600	Analysis of Formaldehyde in Aqueous Solutions of Free Formaldehyde in Resins		D 2194
T 602	Analysis of Sulfuric Acid		E 223
T 604	Sulfur Dioxide in Sulfite Cooking Liquor		
T 605	Reducing a Gross Sample of Granular or Aggregate Material to Testing Size		C 702
T 607	Analysis of Casein		D 4689
T 610	Preparation of Indicators and Standard Solutions		E 200
T 611	Analysis of Bleaching Powder, Calcium Hypochlorite Bleach Liquor and Bleach Sludge		
T 613	Analysis of Caustic Soda		E 291
T 617	Analysis of Lime		C 25
T 618	Analysis of Limestone		C 25
T 619	Analysis of Salt Cake		
T 621	Analysis of Rosin		
T 622	Analysis of Sodium Hydrosulfite		
T 624	Analysis of Soda and Sulfate White and Green Liquors		
T 627	Determination of Titanium Dioxide		
T 628	Analysis of Rosin Size		
T 631	Microbiological Enumeration of Process Water and Slush Pulp		
T 632	Analysis of Sodium Silicate		
T 646	Brightness of Clay and Other Mineral Pigments (45/0)		
T 648	Viscosity of Coating Clay Slurry		
T 650	Solids Content of Black Liquor		
T 653	Specular Gloss of Paper and Paperboard at 20°		D 523
T 656	Measuring, Sampling, and Analyzing White Waters		

T 657	Sampling of Fillers and Pigments		C 322
T 665	Analysis of Talc		D 717
T 676	Viscosity of Starch and Starch Products		
T 684	Gross Heating Value of Black Liquor		D 2015
T 692	Determination of Suspended Solids in Kraft Green and White Liquor		
T 697	Accelerated Test for Viscosity Stability of Clay Slurries		
T 698	Determination of Wetting Tension of Polyethylene and Polypropylene Films and Coatings (Modified Visking Analytical Technique)		D 2578
T 699	Analysis of Pulping Liquors by Suppressed Ion Chromatography		
T 702	Rheological Measurements for Characterization of Polyolefins: Low-Density Polyethylene (LDPE) for Extrusion Coating		

Container Testing

T 800	Drum Test for Fiberboard Shipping Containers (Revolving Hexagonal Drum)		D 782 (wd?)
T 801	Impact Resistance of Fiberboard Shipping Containers		D 880 (wd?)
T 802	Drop Test for Fiberboard Shipping Containers		D 5276 (wd?)
T 803	Puncture Test of Container Board	3036	
T 804	Compression Test of Fiberboard Shipping Containers	12048	D 642
T 807	Bursting Strength of Paperboard and Linerboard	2759	
T 808	Flat Crush Test of Corrugated Board (Flexible Beam Method)	3035	
T 809	Flat Crush of Corrugated Medium (CMT Test)	7263	
T 810	Bursting Strength of Corrugated and Solid Fiberboard	2759	
T 811	Edgewise Compressive Strength of Corrugated Fiberboard (Short Column Test)	3037	
T 812	Ply Separation of Solid and Corrugated Fiberboard (Wet)		
T 813	Tensile Test for the Manufacturer's Joint of Fiberboard Shipping Containers		
T 815	Coefficient of Static Friction (Slide Angle) of Packaging and Packaging Materials (Including Shipping Sack Papers, Corrugated and Solid Fiberboard) (Inclined Plane Method)		D 4918
T 818	Ring Crush of Paperboard	12192	D 1164 (wd?)
T 819	Water Absorption of Corrugating Medium: Boat Method		
T 820	Flexural Stiffness of Corrugated Board		
T 821	Pin Adhesion of Corrugated Board by Selective Separation		
T 822	Ring Crush of Paperboard (Rigid Support Method)	12192	
T 824	Fluted Edge Crush of Corrugating Medium (Flexible Beam Method)		
T 825	Flat Crush Test of Corrugated Board (Rigid Support Method)	3035	
T 826	Short Span Compressive Strength of Paperboard	9895	
T 829	Score Quality Test		
T 830	Ink Rub Test of Container board		
T 831	Water Absorption of Corrugating Medium: Water Drop Penetration Test		
T 832	Water Absorption of Corrugating Medium: Float Curl Method		
T 834	Determination of Paperboard Roll Hardness		
T 835	Water Absorption of Corrugating Medium: Water Drop Absorption Test		
T 836	Bending Stiffness, Four Point Method		
T 838	Edge Crush Test Using Neckdown	3037	
T 839	Edgewise Compressive Strength of Corrugated Fiberboard Using the Clamp Method (Short Column Test)	3037	
T 840	Testing Adhesives Used in Glued Lap Joints of Corrugated Fiberboard Containers		
T 841	Edgewise Compressive Strength of Corrugated Fiberboard Using the Morris Method (Short Column Test)		
T 843	Fluted Edge Crush of Corrugating Medium (Rigid Support Method)		

Structural Materials Testing

T 1001	Forming Insulating Boards for Physical Tests		
T 1002	Drainage Time of Pulp for Insulating Board		

- T 1006 Testing of Fiber Glass Mats: Use of Modified TAPPI Procedures for Sampling and Lot Acceptance, Stiffness, Tear Resistance, and Thickness
- T 1007 Sample Location for Fiber Glass Mat Sheets
- T 1008 Test Conditions for Fiber Glass Mat Test Methods
- T 1009 Tensile Strength and Elongation at Break for Fiber Glass Mats
- T 1011 Basis Weight of Fiber Glass Mats
- T 1012 Moisture Content of Fiber Glass Mats
- T 1013 Loss on Ignition of Fiber Glass Mats
- T 1014 Moisture Sensitivity of Fiber Glass Mats
- T 1015 Fiber Glass Mat Uniformity (Visual Defects)
- T 1016 Average Fiber Diameter of Fiber Glass Mats

Testing Practices

- T 1200 Interlaboratory Evaluation of Test Methods to Determine TAPPI Repeatability and Reproducibility D 1749
- T 1205 Dealing with Suspect (Outlying) Test Determinations E 178
- T 1210 Units of Measurement and Conversion Factors D 4826
- T 1211 Acceptance Procedures for Calibration Laboratories
- T 1212 Light Sources for Evaluating Papers, Including Those Containing Fluorescent Whitening Agents
- T 1214 Interrelation of Reflectance, R_0 ; Reflectivity, R_∞ ; TAPPI Opacity, $C_{0.89}$; Scattering, s ; and Absorption, k
- T 1215 The Determination of Instrumental Color Differences
- T 1216 Indices for Whiteness, Yellowness, Brightness, and Luminous Reflectance Factor
- T 1217 Photometric Linearity of Optical Properties Instruments
- T 1218 Calibration of Reflectance Standards for Hemispherical Geometry
- T 1219 Storage of Paper Samples for Optical Measurements and Color Matching

Specifications, Glossaries, and Guidelines

- T 1500 Optical Measurements Terminology (Related to Appearance Evaluation of Paper)