

Standards Subject Index

NOTE: This list was updated June 10, 2009

A

ABC test

see Sulfide-free reducing compounds, Total reducing compounds

Abrasion

Loss of paper and paperboard, T 476

Abrasion resistance

Paper and paperboard, T 476

Absorbance/absorbency

see Absorptivity

Absorbent papers

see also Absorptivity

Water absorbency of bibulous papers, T 432

Absorption

Determination of effective residual ink concentration (ERIC) by infrared reflectance measurement, T 567

Interrelation of reflectance, R_0 ; reflectivity, R_∞ ; TAPPI opacity, $C_{0.89}$; scattering, s ; and absorption, k , T 1214

Opacity of paper (15/d geometry, illuminant A/2°, 89% reflectance backing and paper backing), T 425

Surface wettability of sheeted materials using an automated contact angle tester, T 558

Absorptiveness

see Absorptivity

Absorptivity

Bibulous papers, to water, T 432

Blotting paper, to ink, T 431

Castor-oil penetration test for paper, T 462

Corrugating medium (water drop absorption test), T 835

Sized paper, paperboard, and corrugated fiberboard to water (Cobb test), T 441

Surface wettability and absorbency of sheeted materials using an automated contact angle tester, T 558

Water, corrugating medium, T 819, T 831, T 832

Accelerated aging

see Aging

Accelerated tests

Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572

Accelerated temperature aging of printing and writing paper by dry oven exposure apparatus, T 573

Aging of paper and board with moist heat, T 544

Effect of dry heat on properties of paper and board, T 453

Acceptability

Sampling and accepting a single lot of paper, paperboard, containerboard, or related product, T 400

Acetate

Analysis of pulping liquors by suppressed ion chromatography, T 699

Acetone

Acetone extractives of wood and pulp, T 280

Solvent extractives of wood and pulp, T 204

Acid groups

Hexeneuronic acid content of chemical pulp, T 282

Acid insolubles

Ash in wood, pulp, paper, and paperboard, T 244

Wood and pulp, T 222

Acid number

see Saponification number

Acid solubles

Acid-soluble iron in paper, T 434

Acidity

see also Saponification number

Analysis of salt cake, T 619

Analysis of sulfuric acid, T 602

Hot water extractable of paper, T 428

Hydrogen ion concentration of paper extracts (cold extraction method), T 509

Hydrogen ion concentration of paper extracts (hot extraction method), T 435

Active chlorine

Analysis of bleaching powder, calcium hypochlorite bleach liquor, and bleach sludge, T 611

Added fluorescence

see Fluorescent dyes

Additives

see also Fillers, Pigments

Adhesion

Curl of flat gummed papers, T 520

Determination of wetting tension of polyethylene and polypropylene films and coatings (modified visking analytical technique, T 698

Determination of wetting tension of polymeric films and coated surfaces via the Mayer rod technique, T 552

Envelope seal, seam, and window patch testing, T 516

Internal bond strength of paperboard (z-direction tensile), T 541

Pin adhesion of corrugated board by selective separation, T 821

Starch consumption in corrugated board (enzymatic/colorimetric method), T 532

Starch consumption in corrugated board (enzymatic/gravimetric method), T 531

Surface wettability and absorbency of sheeted materials using an automated contact angle tester, T 558

Testing adhesives used in glued lap joints of corrugated fiberboard containers, T 840

Water absorption of corrugating medium, T 832

Adhesives
see also Adhesion
 Testing adhesives used in glued lap joints of corrugated fiberboard containers, T 840

Aging
 Effect of dry heat on properties of paper and board, T 453
 Paper and board with moist heat, T 544

Aging tests
 Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572
 Accelerated temperature aging of printing and writing paper by dry oven exposure apparatus, T 573

Air flow (through paper)
see also Air permeability
 Roughness of paper and paperboard (Print-Surf method), T 555

Air permeability
 Paper, T 460
 Air permeance of paper and paperboard (Sheffield method), T 547
 Resistance of paper to passage of air (high-pressure Gurley method), T 536

Air permeance
see also Air permeability
 Air resistance of paper (Gurley method), T 460
 Resistance of paper to passage of air (high-pressure Gurley method), T 536

Air pollution
 Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572

Air resistance
see Air permeability
 Air resistance of paper (Gurley method), T 460
 Resistance of paper to passage of air (high-pressure Gurley method), T 536

Alcohol-benzene
see Benzene

Alexander's stain
see Fiber analysis, Staining

Alkali
 Analysis of bleaching powder, calcium hypochlorite bleach liquor, and bleach sludge, T 611
 Analysis of rosin size, T 628

Alkali solubles/solubility
see Caustic solubles

Alkaline papers
 Alkalinity of paper as calcium carbonate (alkaline reserve of paper), T 553

Alkaline pulp
see Pulp

Alkaline reserve
see Alkalinity

Alkalinity
 Analysis of soda and sulfate white and green liquors, T 624
 Caustic soda, T 613

Hot water extractable of paper, T 428

Hydrogen ion concentration of paper extracts (cold extraction method), T 509

Hydrogen ion concentration of paper extracts (hot extraction method), T 435

Paper as calcium carbonate (alkaline reserve), T 553

Sodium silicate, T 632

Alpha-cellulose
 In paper, T 429
 In pulp, T 203

Alumina
see Aluminum oxide

Alumina hydrate
see Aluminum hydroxide

Aluminum oxide (alumina)
 Analysis of limestone, T 618
 Analysis of salt cake, T 619

Amides
 Organic nitrogen in paper and paperboard, T 418

Amines
 Organic nitrogen in paper and paperboard, T 418

Ammonium hydroxide
 Analysis of talc, T 665

Ammonium thiocyanate
 Preparation of indicators and standard solutions, T 610

Analysis
 Determination of equilibrium moisture in pulp, paper, and paperboard for chemical analysis, T 550
 Glue in paper (qualitative and quantitative determination), T 504
 Preparation of wood for chemical analysis, T 264
 Sampling and preparing wood for analysis, T 257

Anatase titanium dioxide
see Pigments

Angle of contact
see Contact angle

Angle of slide
see Slide angle

Animal glue
see Glue

Glue in paper (qualitative and quantitative determination), T 504

Anomalies
 Dealing with suspect (outlying) test determinations, T 1205

Apparent viscosity
see Viscosity

Arabinan
 Carbohydrate composition of extractive-free wood and wood pulp by gas-liquid chromatography, T 249

Area
see Specific surface

Arsenic
 Analysis of sulfuric acid, T 602

Ash
see Ash content
 Analysis of rosin, T 621
 Analysis of rosin size, T 628

Ash content
Acid-insoluble, in wood, pulp, paper and paperboard, T 244
Ash in wood, pulp, paper and paperboard: combustion at 525°C, T 211
Wood, pulp, paper and paperboard, combustion at 900°C, T 413
Atmospheres
Paper, board, pulp handsheets, T 402
Test conditions for fiber glass mat test methods, T 1008
Atomic absorption spectroscopy
Use of in determining sodium, calcium, copper, iron, and manganese in pulp and paper, T 266
Zinc and cadmium in paper, T 438
Available chlorine
see Active chlorine

B

Babcock method
see Casein, analysis of
Bacteria
see Bacteriology
Bacteriological examination
see Bacteriology
Bacteriology
Bacteriological examination of paper and paperboard, T 449
Microbiological enumeration of process water and slush pulp, T 631
Bag papers
see Shipping sack papers
Bagasse
Species identification of nonwood plant fibers, T 259
Baled pulp
Sampling and testing wood pulp shipments for moisture, T 210
Bamboo
Species identification of nonwood plant fibers, T 259
Bark
Analysis of rosin, T 621
Weight-volume measurement of pulpwood, T 268
Barley straw
Species identification of nonwood plant fibers, T 259
Barrier films
see Vapor barriers
Barrier properties
see Absorptivity, Permeability
Basic density
see Density
Basis weight
Cross-machine grammage profile measurement (gravimetric method), T 545
Grammage of paper and paperboard (weight per unit area), T 410
Fiber glass mats, T 1011

Machine direction grammage variation measurement (gravimetric method), T 546
Bauer-McNett classifier
Fiber length of pulp by classification, T 233
Baumé gravity
see Density
Beaten pulps
see Pulp, Beaters
Beater method
see Beaters
Beater tests
see Beaters
Beaters
Drainage time, T 221
Laboratory beating of pulp (PFI mill method), T 248
Laboratory beating of pulp (Valley beater method), T 200
Beating
Laboratory beating of pulp (PFI mill method), T 248
Pulp quality analyzed by, T 200
Specific external strength of pulp, T 226
Beating degree
Laboratory beating of pulp (Valley beater method), T 200
Beating time
Laboratory beating of pulp (Valley beater method), T 200
Bekk testers
Smoothness of paper, T 479
Bend strength
Bending resistance of paper (Gurley-type tester), T 543
Bending resistance of paper and paperboard (Lorentzen & Wettre type tester, T 556
Corrugated board stiffness, four point method, T 836
Flexural stiffness of corrugated board, T 820
Score bend test, T 577
Testing of fiber glass mats: use of modified TAPPI procedures for sampling and lot acceptance, stiffness, tear resistance, and thickness, T 1006
Bending
Bending number of paperboard, T495
Bending resistance (stiffness) of paper (Taber-type tester in 0 to 10 Taber stiffness unit configuration), T 566
Bending resistance (stiffness) of paper and paperboard (Taber-type tester in basic configuration), T 489
Corrugated board stiffness, four point method, T 836
Flexural stiffness of corrugated board, T 820
Puncture test of containerboard, T 803
Bending number
see Bending
Bending resistance
see Bend strength
Bending resistance of paper (Gurley-type tester), T

- 543
- Benzene
 Use of in determining solubles in wood and pulp, T 204
 Use of in preparing wood for chemical analysis, T 264
- Beta-cellulose
 In pulp, T 203
- Bibulous papers
see Absorbent papers
- Biochemical oxygen demand
see BOD
- Biological control
 Bacteriological examination of paper and paperboard, T 449
 Microbiological enumeration of process water and slush pulp, T 631
- Bisulfite cooking liquor
see Sulfur dioxide
- Black liquor
 Analysis of pulping liquors by suppressed ion chromatography, T 699
 Gross heating value, T 684
 Solids concentration of, T 650
- Bleach
 Analysis of bleaching powder, calcium hypochlorite bleach liquor, and bleach sludge, T 611
- Bleach liquor
 Analysis of bleaching powder, calcium hypochlorite bleach liquor, and bleach sludge, T 611
- Bleach sludge
see Bleach, Sludge
- Bleached pulps
see also Pulps
 Alpha-, beta-, gamma-cellulose in pulp, T 203
 Carboxyl content of pulp, T 237
 Copper number of pulp, T 430
- Bleaching agents
see Bleach
- Bleaching powder
see Calcium hypochlorite
- Blister resistance
see Blistering
- Blistering
 Coated paper in heatset printing, T 526
 Internal bond strength (Scott type), T 569
- Blotting papers
see also Absorptivity
 Ink absorbency, T 431
 Water absorbency of bibulous papers, T 432
 Water absorptiveness of sized paper, paperboard, and corrugated fiberboard (Cobb test), T 441
- Board
see Corrugated board, Fiberboard, Containers, Insulating board, Linerboard, Paperboard
- Boat method
see Corrugating medium
- BOD
 Measuring, sampling, and analyzing white waters, T 656
- Bond strength
see also Adhesion
 Internal bond strength of paperboard (z-direction tensile), T 541
 Pin adhesion of corrugated board by selective separation, T 821
- Bonding strength
 Abrasion loss of paper and paperboard (Taber-type method), T 476
 Internal bond strength (Scott type), T 569
 Ply separation of solid and corrugated fiberboard (wet), T 812
- Bone glue
see Glue
- Book bulk
see Bulk number
- Book paper
see Bulk number
- Books
 Book bulk and bulking number of paper, T 500
- Boring method
see Baled pulp
- Boxboard
see Linerboard
- Boxes
see also Containers
 Drop test for fiberboard shipping containers, T 802
- Breaking length
see Tensile strength
- Breaking strength
see Tensile strength
- Brightness
see also Reflectance
 Brightness of clay and other mineral pigments (45/0), T 646
 Brightness of clay and other mineral pigments (d/0 diffuse), T 534
 CIE whiteness and tint of paper and paperboard (45/0 geometry, C/2 illuminant/observer), T 562
 CIE whiteness and tint of paper and paperboard (d/0 geometry, C/2 illuminant/observer), T 560
 Diffuse brightness of paper, paperboard and pulp (d/0), T 525
 Equivalent Black Area (EBA) and count of visible dirt in pulp, paper and paperboard by image analysis, T 563
 Forming handsheets for reflectance testing of pulp (Büchner funnel procedure), T 218
 Forming handsheets for reflectance testing of pulp (sheet machine procedure), T 272
 Indices for whiteness, yellowness, brightness, and luminous reflectance factor, T 1216
 Physical area of sub-visible contraries in pulp, paper and paperboard by image analysis, T 568
 Pulp, paper, and paperboard (directional reflectance at 457 nm), T 452
- Bromophenol blue
see Indicators, preparation of
- Bulk
 Book bulk and bulking number of paper, T 500

Bulk density
Basic density and moisture content of pulpwood, T 258

Bulk number
Of paper, T 500

Burst factor
see Burst strength

Burst index
see Burst strength

Burst ratio
see Burst strength

Burst strength
Corrugated and solid fiberboard, T 810
Linerboard, T 807
Paper, T 403

C

Cadmium
Zinc and cadmium in paper, T 438

Calcium
In pulp and paper by atomic absorption spectroscopy, T 266

Calcium carbonate
Alkalinity of paper as (alkaline reserve), T 553

Calcium hypochlorite
Analysis of bleach liquor, T 611

Calcium oxide
Analysis of lime, T 617
Analysis of limestone, T 618
Analysis of talc, T 665

Calibration
Acceptance procedures for calibration laboratories, T 1211
Calibration of reflectance standards for hemispherical geometry, T 1218

Caliper
see Thickness

Calorimetry
Gross heating value of black liquor, T 684

Canadian Standard Method
Freeness of pulp, T 227

Capillarity
Viscosity of pulp (capillary viscometer method), T 230

Capillary viscometer
see Capillarity

Carbohydrates
Alkali solubility of pulp at 25°C, T 235
Composition of extractive-free wood and wood pulp by gas-liquid chromatography, T 249
Extraction of by hot alkali, T 212

Carbonates
Analysis of caustic soda, T 613
Analysis of pulping liquors by suppressed ion chromatography, T 699

Carboxyl content
see Carboxyl groups

Carboxyl groups
Carboxyl content of pulp, T 237

Carton adhesive
see Adhesion, Bond strength

Casein
Organic nitrogen in paper and paperboard, T 418

Castor oil
Penetration test for paper, T 462

Caustic soda
see Sodium hydroxide

Caustic solubles
Alkali solubility of pulp at 25°C, T 235
One percent sodium hydroxide solubility of wood and pulp, T 212

Cellulose
Alkali solubility of pulp at 25°C, T 235
Alpha-, beta-, gamma-cellulose in pulp, T 203
Alpha-cellulose in paper, T 429
Carboxyl content, T 237
Cupriethylenediamine disperse viscosity of pulp, T 254
Indication of degradation during pulping and bleaching processes, T 212
Viscosity of pulp (capillary viscometer method), T 230

Centrifugal pump
see Sample preparation

Chemical analysis
Determination of equilibrium moisture in pulp, paper and paperboard analysis, T 550
Preparation of wood for, T 264

Chemical properties
see specific properties, e.g., pH

Chemical pulps
See also Pulp
Hexeneuronic acid content of chemical pulp, T 282
Pulp screening (Valley-type screening device), T 278

Chips
see also Wood
Analysis of rosin, T 621
Basic density and moisture content of pulpwood, T 258
Natural dirt in wood chips, T 265
Sampling and preparing wood for analysis, T 257

Chlorides
Analysis of caustic soda, T 613
Analysis of pulping liquors by suppressed ion chromatography, T 699
Analysis of salt cake, T 619
Water-soluble chlorides in pulp and paper, T 256

Chlorine
Analysis of bleaching powder, calcium hypochlorite bleach liquor, and bleach sludge, T 611
Analysis of salt cake, T 619

Chlorine sludge
Analysis of bleaching powder, calcium hypochlorite bleach liquor, and bleach sludge, T 611

Chromaticity coordinates
 Color of paper and paperboard, T 527

Chromatography
 Suppressed ion analysis of pulping liquors, T 699

Chromium oxide
 Analysis of salt cake, T 619

Chromium trioxide
 Analysis of salt cake, T 619

C.I.V. test
see Viscosity

Clark classifier
 Fiber length of pulp, T 233

Clark stiffness
see Stiffness

Classification
 Fiber length of pulp, T 233

Classifiers
 Fiber length of pulp, T 233

Clay
 Accelerated test for viscosity stability of clay slurries, T 697
 Brightness of clay and other mineral pigments (45/0), T 646
 Brightness of clay and other mineral pigments (d/0 diffuse), T 534
 Viscosity of coating clay slurry, T 648

CMT test
see Corrugating medium

Coarseness
see Fineness

Coated board
 Blister resistance in heat set printing, T 526
 Surface strength of paper (wax pick test), T 459

Coated paper
 Blister resistance of in heatset printing, T 526
 Dynamic measurement of water vapor transfer through sheet materials, T 523

Coating clay
see Clay

Coating clay slurry
see Clay, Slurry

Coating color
 Titanium dioxide content in, T 627

Coating fillers
see Fillers

Coating pigments
see Pigments

Coatings
see also Fillers, Pigments
 Abrasion loss of paper and paperboard (Taber-type method), T 476
 Ash in wood, pulp, paper and paperboard: combustion at 900°C, T 413
 Determination of wetting tension of polymeric films and coated surfaces via the Mayer rod technique, T 552
 Determination of wetting tension of polyethylene and polypropylene films and coatings (modified visking analytical technique, T 698
 Viscosity of coating clay slurry, T 648

Zinc and cadmium in paper, T 438

Cobb test
 Water absorptiveness of sized (non-bibulous) paper, paperboard, and corrugated fiberboard (Cobb test), T 441

COD
 Open drum washer mat sampling technique, T 281

Coefficient of friction
see Friction

Coefficient of kinetic friction
see Friction

Coefficient of static friction
see Friction

Cohesion
 Internal bond strength of paperboard (z-direction tensile), T 541

Cohesiveness of fibers
see Tensile strength

Cold extraction method
see Extraction

Cold storage
 Storage of paper samples for optical measurements and color matching, T 1219

Cold water solubles
see Water solubles

Color
 Analysis of rosin, T 621
 CIE whiteness and tint of paper and paperboard (45/0 geometry, C/2 illuminant/observer), T 562
 CIE whiteness and tint of paper and paperboard (d/0 geometry, C/2 illuminant/observer), T 560
 Color of paper and paperboard (45/0, C/2), T 524
 Color of paper and paperboard (d/0, C/2), T 527
 Storage of paper samples for optical measurements and color matching, T 1219
 The determination of instrumental color differences, T 1215
 Visual grading and color matching of paper, T 515

Color grade
see Color

Color matching
 Storage of paper samples for optical measurements and color matching, T 1219
 Visual grading and color matching of paper, T 515

Colorimetric determination
see Color, Colorimetry

Colorimetry
 Color of paper and paperboard (45/0, C/2), T 524
 Color of paper and paperboard (d/0, C/2), T 527
 Visual grading and color matching of paper, T 515

Combined board
see also Corrugated board
 Thickness (caliper) of paper, paperboard, and combined board, T 411

Combustion
 Ash in wood, pulp, paper and paperboard, T 211, T 413
 Gross heating value of black liquor, T 684

Combustion products
 Ash in wood, pulp, paper and paperboard, T 211

- Ash in wood, pulp, paper and paperboard: combustion at 900°C, T 413
- Composition
 - see* Fiber analysis
- Compressibility
 - Compression test of fiberboard shipping containers, T 804
 - Edge crush using neckdown, T 838
 - Flat crush of corrugating medium (CMT test), T 809
 - Flat crush test of corrugated board (flexible beam method), T 808
 - Ring crush of paperboard (flexible beam method), T 818
- Compression resistance
 - see* Compressibility, Compression strength
- Compression strength
 - Compression test of fiberboard shipping containers, T 804
 - Edgewise compressive strength of corrugated fiberboard (short column test), T 811
 - Flat crush of corrugating medium (CMT test), T 809
 - Flat crush test of corrugated board (flexible beam method), T 808
 - Short span compressive strength of containerboard, T 826
- Compression tests
 - Compression test of fiberboard shipping containers, T 804
 - Edge crush using neckdown, T 838
 - Flat crush test of corrugated board (rigid support method), T 825
 - Fluted edge crush of corrugating medium (flexible beam method), T 824
 - Fluted edge crush of corrugating medium (rigid support method), T 843
 - Ring crush of paperboard (flexible beam method), T 818
 - Ring crush of paperboard (rigid support method), T 822
- Compression wood
 - Identification of in pulpwood, T 267
- Compressive strength
 - see* Compression tests
- Concentration (pulp)
 - Pulp suspensions, T 240
- Conditioning
 - Paper, board, pulp handsheets, and related products, T 402
- Conifers
 - see* Softwoods
- Consistency
 - see also* Viscosity
 - Open drum washer mat sampling technique, T 281
 - Pulp suspensions, T 240
- Constant rate of elongation
 - see* Elongation
- Contact angle
 - Surface wettability of paper (angle of contact method), T 458
- Container boards
 - see also* Corrugated boards, Fiberboard
 - Coefficient of static friction (slide angle) of packaging and packaging materials (including shipping sack papers, corrugated and solid fiberboard) (inclined plane method), T 815
 - Determination of paperboard roll hardness, T 834
 - Drum test for fiberboard shipping containers, T 800
 - Ink rub, T 830
 - Puncture test of containerboard, T 803
 - Sampling and accepting a single lot of paper, paperboard, containerboard, or related product, T 400
 - Score quality test, T 829
 - Short span compressive strength of containerboard, T 826
 - Standard conditioning and testing atmospheres for paper, board, pulp handsheets, and related products, T402
 - Surface wettability and absorbency of sheeted materials using an automated tester, T 558
- Container testing
 - see* Containers, Container board
- Containers
 - Compression test of fiberboard shipping containers, T 804
 - Drum test for fiberboard shipping containers, T 800
 - Impact resistance of fiberboard shipping containers, T 801
 - Macro stickies content in pulp: the “pick-up” method, T 277
- Contaminants
 - see* Impurities
- Contraries
 - Dirt in paper and paperboard, T 437
- Contrast ratio
 - Opacity of paper (15/d geometry, illuminant A/2°, 89% reflectance backing and paper backing), T 425
- Controlled atmospheres
 - Paper, board, pulp handsheets testing, T 402
 - Test conditions for fiber glass mat test methods, T 1008
- Conversion
 - Bending number of paperboard, T495
- Conversion factors
 - For units of measurement, T 1210
- Cooking liquor
 - See also* Liquors, Kraft liquor, Soda liquors, Sulfite liquor, Bleach liquor, Green liquors, White liquors
 - Sulfur dioxide in sulfite cooking liquor, T 604
- Copper
 - In pulp and paper by atomic absorption spectroscopy, T 266
- Copper number
 - Pulp, paper, and paperboard, T 430
- Cord weight
 - see* Weight
- Corn
 - Species identification of nonwood plant fibers, T 259

- Corrugated boards
see also Containers, Corrugating medium, Fiberboard, Linerboard
 Flat crush test of corrugated board (rigid support method), T 825
 Bursting strength, T 810
 Edge crush using neckdown, T 838
 Edgewise compressive strength of corrugated fiberboard (short column test), T 811
 Edgewise compressive strength of corrugated fiberboard using the clamp method (short column test), T 839
 Edgewise compressive strength of corrugated fiberboard using the Morris method (short column test), T 841
 Flat crush of corrugating medium (CMT test), T 809
 Flat crush test (flexible beam method), T 808
 Flexural stiffness, T 820
 Ink rub, T 830
 Pin adhesion by selective separation, T 821
 Puncture resistance of, T 803
 Ply separation of, T 812
 Ring crush of paperboard (flexible beam method), T 818
 Ring crush of paperboard (rigid support method), T 822
 Score quality test, T 829
 Starch consumption in (enzymatic/colorimetric method), T 532
 Starch consumption in (enzymatic/gravimetric method) T 531
 Stiffness, four point method, T 836
 Thickness (caliper) of paper, paperboard, and combined board, T 411
 Water absorptiveness of sized (non-bibulous) paper, paperboard, and corrugated fiberboard (Cobb test), T 441
- Corrugated boxes
see also Boxes, Corrugated board, Containers
 Drop test for fiberboard shipping containers, T 802
 Score quality test, T 829
 Tensile test for the manufacturer's joint of fiberboard shipping containers, T 813
 Testing adhesives used in glued lap joints of corrugated fiberboard containers, T 840
 Short span compressive strength of containerboard, T 826
- Corrugated containers
see Containers
- Corrugated fiberboard
see Fiberboard, Corrugated board
- Corrugated fluted crush test
 Fluted edge crush of corrugating medium (flexible beam method), T 824
 Fluted edge crush of corrugating medium (rigid support method), T 843
- Corrugating adhesives
see Adhesion
- Corrugating medium
see also Corrugated boards, Fiberboard
 Flat crush (CMT-test), T 809
 Fluted edge crush of corrugating medium (flexible beam method), T 824
 Fluted edge crush of corrugating medium (rigid support method), T 843
 Pin adhesion of corrugated board by selective separation, T 821
 Water absorption, T 819, T 831, T 832, T 835
- Cotton
 Species identification of nonwood plant fibers, T 259
- Cracking
see Fracture
- Creasing
see also Folding endurance
 Creasing of flexible packaging material paper specimens for testing, T 512
 Static creasing of paper for water vapor transmission tests, T 465
- Critical wax strength number (CWSN)
see Wax pick tests
- Cross direction
 Grammage profile measurement, T 545
- Cross direction tear
 Specimen preparation for cross directional internal tearing resistance for paper, paperboard and related materials, T 496
- Crude tall oil
see Tall oil
- Crush resistance
see Edge crush resistance, Ring crush tests, Flat crush tests
- Cuene
 Cupriethylenediamine disperse viscosity of pulp (falling ball method), T 254
 Viscosity of pulp, T 230
- Cupriethylene diamine
see Cuene
- Curl
 Gummed flat papers, T 520
 Preparation of mechanical pulps for testing, T 262
-
- D**
-
- Dairyman's standard
 Bacteriological examination of paper and paperboard, T 449
- Debris
 Pulp screening (Valley-type screening device), T 278
- Defect area
 Transparent chart for the estimation of defect size, T 564
- Defect size
 Transparent chart for the estimation of defect size, T 564
- Defects
 Fiber glass mat uniformity (visual defects), T 1015
 Transparent chart for the estimation of defect size, T

- 564
- Defibering
Pulp screening (Valley-type screening device), T 278
- Defibrator
see Disintegrators
- Degradation/Degraded cellulose
see Cellulose
- Degree of adhesion
see Adhesion
- Degree of curl
see Curl
- Degree of defibering
see Disintegrators
- Degree of delignification
see Delignification
- Degree of sizing
see Sizing
- Delamination
Internal bond strength (Scott type), T 569
- Delignified pulps
see Pulps
- Densitometer
Air resistance of paper (Gurley method), T 460
Resistance of paper to passage of air (high-pressure Gurley method), T 536
- Density
Air resistance of paper (Gurley method), T 460
Analysis of rosin size, T 628
Analysis of sulfuric acid, T 602
Basic density and moisture content of pulpwood, T 258
Resistance of paper to passage of air (high-pressure Gurley method), T 536
Sodium silicate, T 632
Weight-volume measurement of pulpwood, T 268
- Diatomaceous earth
see Silica
- Dichloromethane
Solubles in wood and pulp, T 204
- Diffuse blue reflectance
see Diffuse reflection
- Diffuse brightness
see Diffuse reflection
- Diffuse ISO brightness
see Diffuse reflection
- Diffuse luminous reflectance
see Diffuse reflection
- Diffuse opacity
see Diffuse reflection
- Diffuse reflectance
Diffuse brightness of paper, paperboard and pulp ($d/0$), T 525
- Diffuse reflection
Brightness of clay and other mineral pigments ($d/0$ diffuse), T 534
Diffuse opacity of paper ($d/0$ paper backing), T 519
Opacity of paper ($15/d$ geometry, illuminant $A/2^\circ$, 89% reflectance backing and paper backing), T 425
- Diffuse reflection factor
see Diffuse reflection
- Dimensional measurement
Transparent chart for the estimation of defect size, T 564
- Dimensioning
see Boxes
- Directional brightness
Brightness of pulp, paper, and paperboard (directional reflectance at 457 nm), T 452
- Directional reflectance
see Reflectance
Brightness of pulp, paper, and paperboard (directional reflectance at 457 nm), T 452
- Dirt
see also Defects
Analysis of rosin, T 621
Equivalent black area (EBA) and count of visible dirt in pulp, paper and paperboard by image analysis, T 563
In paper and paperboard, T 437
In pulp, T 213
Natural dirt in wood chips, T 265
Physical area of sub-visible contraries in pulp, paper and paperboard by image analysis, T 568
- Dirt count
see also Dirt
Dirt count in paper and paperboard (optical character recognition – OCR), T 537
Dirt in paper and paperboard, T 437
Equivalent Black Area (EBA) and count of visible dirt in pulp, paper and paperboard by image analysis, T 563
Natural dirt in wood chips, T 265
Physical area of sub-visible contraries in pulp, paper and paperboard by image analysis, T 568
- Dirt index
see Dirt
- Discoloration
Envelope seal, seam, and window patch testing, T 516
- Disintegration
Preparation of mechanical pulps for testing, T 262
- Disintegrators
Use of in determining drainage time of pulp, T 221
Use of in forming handsheets for reflectance tests of pulp, T 218
- Disperse viscosity
see Viscosity
- Dispersions
Consistency (concentration) of pulp suspensions, T 240
Microbiological enumeration of process water and slush pulp, T 631
- Dissolved solids
Measuring, sampling, and analyzing white waters, T 656
Open drum washer mat sampling technique, T 281
- Dominant wavelength
Color of paper and paperboard ($d/0$, $C/2$), T 527

Color of paper and paperboard (45/0, C/2), T 524
Drainage
 Of pulp, T 221
 Of pulp for insulating board, T 1002
Drainage rate
 Freeness of pulp, T 227
Drop test
 see Impact tests
Drum tests
 see Impact tests
Drums
 Open drum washer mat sampling technique, T 281
Dry abrasion test
 see Abrasion
Dry curl
 see Curl
Dry heat
 see Heat
Dry indicator method
 see Water resistance
Dry indicator tests
 Zero-span breaking strength of pulp (dry zero-span tensile), T 231
Dry size
 see Rosin size
Dryness
 see Moisture content
Dupont stain
 see Fiber analysis, Staining
Durability
 see Permanence
 Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572
 Accelerated temperature aging of printing and writing paper by dry oven exposure apparatus, T 573
Dynamic tests
 Water vapor transfer through sheet materials, T 523

E

ERIC (Effective residual ink concentration)
 see Ink
Edge crush resistance
 see also Edge crush tests
 Edge crush using neckdown, T 838
 Edgewise compressive strength of corrugated fiberboard using the clamp method (short column test), T 839
 Edgewise compressive strength of corrugated fiberboard using the Morris method (short column test), T 841
 Fluted edge crush of corrugating medium (flexible beam method), T 824
 Fluted edge crush of corrugating medium (rigid support method), T 843
 Ring crush of paperboard (flexible beam method), T 818

 Ring crush of paperboard (rigid support method), T 822
Edge crush tests
 see also Edge crush resistance
 Edgewise compressive strength of corrugated fiberboard (short column test), T 811
Edgewise compression strength
 see Edge crush resistance
Ehrlich's reagent
 Glue in paper (qualitative and quantitative determination), T 504
Electrical conductivity
 see Conductivity
 pH and electrical conductivity of hot water extracts of pulp, paper, and paperboard, T 252
Elemental sulfur
 see Sulfur
Elmendorf-type tests
 see Tear strength
Elongation
 Tensile strength and elongation at break for fiber glass mats, T 1009
Energy absorption
 see Tensile energy absorption
Envelopes
 Seal, seam, and window patch testing, T 516
Enzymatic/colorimetric method
 see Starch
Enzymatic/gravimetric method
 see Starch
Equilibrium moisture
 Determination of in pulp, paper and paperboard for chemical analysis, T 550
Equilibrium relative humidity
 see Humidity
Equivalent black area (EBA)
 Equivalent black area (EBA) and count of visible dirt in pulp, paper and paperboard by image analysis, T 563
 Dirt in pulp, T 213
Errors
 Dealing with suspect (outlying) test determinations, T 1205
Esparto
 Fiber analysis of paper and paperboard, T 401
Ethanol
 Use of in determining solubles in wood and pulp, T 204
 Use of in preparing wood for chemical analysis, T 264
Excitation purity
 see Dominant wavelength
External compressive forces
 see Compression tests
External surface
 see Specific surface
Extractable material
 Water solubility of wood and pulp, T 207
Extractable resin
 see Rosin

Extraction
Acetone extractives of wood and pulp, T 280
Hydrogen ion concentration (pH) of paper extracts (cold extraction method), T 509
Hydrogen ion concentration (pH) of paper extracts (hot extraction method), T 435
Solvent extractives of wood and pulp, T 204
Extraction apparatus
see Rosin
Extractive-free wood
see Wood
Extractives
Acetone extractives of wood and pulp, T 280
Hot water extractable acidity or alkalinity of paper, T 428
Hydrogen ion concentration of paper extracts (cold extraction method), T 509
Solvent extractives of wood and pulp, T 204
Extracts
see Extractives
Extrusion coating
Rheological measurements for characterization of polyolefins: low-density polyethylene (LDPE) for extrusion coating, T 702

F

Facial tissues
Tensile properties of towel and tissue products (using constant rate of elongation apparatus), T 576
Falling ball method
see Viscosity
Fatty acids
Acetone extractives of wood and pulp, T 280
Fats
Acetone extractives of wood and pulp, T 280
Determination of in wood and pulp, T 204
Feathering
Surface wettability of paper (angle of contact method), T 458
Felt side
Identification of wire side in paper, T 455
Ferric iron
see Iron
Ferroin
see Indicators, preparation of
Ferrous ammonium sulfate
Preparation of indicators and standard solutions, T 610
Ferrous iron
see Iron
Fiber
Analysis of paper and paperboard, T 401
Coarseness of pulp fibers, T 234
Consistency (concentration) of pulp suspensions, T 240
Effective fiber length index by zero/short-span tensile testing, T 279
Identification of from conifers, T 263

Species identification of nonwood plant fibers, T 259
Zero-span breaking strength of pulp (dry zero-span tensile), T 231
Fiber analysis
Of paper and paperboard, T 401
Fiber bonding
Internal bond strength of paperboard (z-direction tensile), T 541
Internal bond strength (Scott type), T 569
Fiber clarifier
see Fiber classification
Fiber classification
Fiber length of pulp, T 233
Fiber debris
Screening of pulp (Somerville-type equipment), T 275
Fiber diameter
Average fiber diameter of fiber glass mats, T 1016
Fiber glass mats
Average fiber diameter, T 1016
Basis weight, T 1011
Loss on ignition, T 1013
Moisture content, T 1012
Moisture sensitivity, T 1014
Uniformity (visual defects), T 1015
Fiber identification
see Identification
Fiber length
By classification, T 233
Effective fiber length index by zero/short-span tensile testing, T 279
Of pulp and paper by automated optical analyzer, T 271
Of pulp by projection, T 232
Fiber length distribution
Fiber length of pulp and paper by automated analyzer, T 271
Fiber mats
Sample location for fiber glass mat sheets, T 1007
Tensile strength and elongation at break for fiber glass mats, T 1009
Testing of fiber glass mats: use of modified TAPPI procedures for sampling and lot acceptance, stiffness, tear resistance, and thickness, T 1006
Test conditions for fiber glass mat test methods, T 1008
Fiber suspensions
see Dispersions
Fiberboard containers
see Containers, Fiberboard
Fiberboard shipping containers
see Containers, Fiber boards
Fiberboards
see also Corrugated boards
Bursting strength, T 810
Compression test of fiberboard shipping containers, T 804
Drop test for fiberboard shipping containers, T 802
Drum test for fiberboard shipping containers, T 800

- Edge crush using neckdown, T 838
- Flexural stiffness of corrugated board, T 820
- Impact resistance of fiberboard shipping containers, T 801
- Ink rub, T 830
- Ply separation of solid and corrugated fiberboard (wet), T 812
- Ring crush of paperboard (flexible beam method), T 818
- Ring crush of paperboard (rigid support method), T 822
- Sampling and accepting a single lot of, T 400
- Standard conditioning and testing atmospheres for paper, board, pulp handsheets, and related products, T 402
- Stiffness, four point method, T 836
- Water absorptiveness of sized (non-bibulous) paper, paperboard, and corrugated fiberboard (Cobb test), T 441
- Filled papers
 - Zinc and cadmium in paper, T 438
- Fillers
 - see also* Pigments
 - Ash in wood, pulp, paper and paperboard: combustion at 900°C, T 413
 - Determination of titanium dioxide, T 627
 - Sampling, T 657
- Films
 - Determination of wetting tension of polyethylene and polypropylene films and coatings (modified visking analytical technique, T 698
 - Determination of wetting tension of polymeric films and coated surfaces via the Mayer rod technique, T 552
 - Envelope seal, seam, and window patch testing, T 516
- Fineness
 - Coarseness of pulp fibers, T 234
 - Specific external surface of pulp, T 226
- Fire resistance
 - see* Flameproof papers
- Fireproof papers
 - see* Flameproof papers
- Fixed suspended solids
 - see* Suspended solids
- Flakes
 - Pulp screening (Valley-type screening device), T 278
- Flame resistance
 - see* Flameproof papers
- Flameproof papers
 - Treated paper and paperboard, T 461
- Flat crush tests
 - Corrugated board, T 808
 - Corrugating medium, T 809
 - Flat crush test of corrugated board (rigid support method), T 825
- Flax
 - Fiber analysis of paper and paperboard, T 401
 - Species identification of nonwood plant fibers, T 259
- Flexible packaging
 - see also* Packaging materials
 - Grease resistance of flexible packaging materials, T 507
- Flexural properties
 - see* Bend strength
- Flexural resistance/stiffness
 - see* Stiffness
- Float curl method
 - Water absorption of corrugating medium, T 832
- Flow measurement
 - Measuring, sampling, and analyzing white waters, T 656
- Fluorescence
 - Brightness of pulp, paper, and paperboard (directional reflectance at 457 nm), T 452
- Fluorescent dyes
 - Light sources for evaluating papers including those containing fluorescent whitening agents, T 1212
 - Visual grading and color matching of paper, T 515
- Fluorescent whitening agents
 - see* Fluorescent dyes
- Fluorine compounds
 - Grease resistance for paper and paperboard, T 559
- Flute rigidity
 - see* Flutes, Compressibility
- Flute-tip adhesion
 - see* Pin adhesion tests
- Fluted edge crush
 - see* Edge crush resistance
- Flutes
 - Flat crush test of corrugated board (flexible beam method), T 808
 - Fluted edge crush of corrugating medium (flexible beam method), T 824
 - Fluted edge crush of corrugating medium (rigid support method), T 843
- Fold
 - Folding endurance of paper (Schopper type tester), T 423
- Folding
 - Bending number of paperboard, T495
- Folding endurance
 - see also* Bending, Stiffness
 - Folding endurance of paper (Schopper type tester), T 423
 - Paper, T 511
- Folding number
 - Folding endurance of paper (Schopper type tester), T 423
- Folding resistance
 - see* Folding endurance
- Food boards
 - Odor of packaging materials, T 483
- Food packaging
 - see* Food boards, Food wrap papers
- Food wrap papers
 - Odor of packaging materials, T 483

Foreign particles
 see Impurities

Formaldehyde
 Analysis of formaldehyde in aqueous solutions and
 of free formaldehyde in resins, T 600

Formate
 Analysis of pulping liquors by suppressed ion
 chromatography, T 699

Formation
 Fiber glass mat uniformity (visual defects), T 1015
 Handsheets for reflectance testing of pulp, T 272

Four point method
 see Stiffness

Free fall drops
 see Impact test

Free mineral acids
 see Inorganic acids

Free moisture
 see Moisture content

Freeness
 see also Drainage
 Drainage time of pulp, T 221
 Pulp, T 227

Friction
 Coefficient of static friction (slide angle) of
 packaging and packaging materials (including
 shipping sack papers, corrugated and solid
 fiberboard) (inclined plane method), T 815
 Coefficients of static and kinetic friction of
 uncoated writing and printing paper by use of the
 horizontal plane method, T 549

Friction factor
 see also Friction
 Coefficients of static and kinetic friction of
 uncoated writing and printing paper by use of the
 horizontal plane method, T 549
 Coefficient of static friction (slide angle) of
 packaging and packaging materials (including
 shipping sack papers, corrugated and solid
 fiberboard) (inclined plane method), T 815

Fungi
 Microbiological enumeration of process water and
 slush pulp, T 631

Fungus resistance
 see Fungi

Furnish
 Drainage time of pulp, T 221

G

Galactan
 Carbohydrate composition of extractive-free wood
 and wood pulp by gas-liquid chromatography, T
 249

Gamma cellulose
 In pulp, T 203

Gas chromatography
 Carbohydrate composition of extractive-free wood
 and wood pulp, T 249

Gas-liquid chromatography
 see Gas chromatography

Gelatin
 Glue in paper (qualitative and quantitative
 determination) T 504

Geometry
 Calibration of reflectance standards for
 hemispherical geometry, T 1218

Glass fibers
 see also Fiber glass mats
 Sample location for fiber glass mat sheets, T 1007
 Tensile strength and elongation at break for fiber
 glass mats, T 1009
 Testing of fiber glass mats: use of modified TAPPI
 procedures for sampling and lot acceptance,
 stiffness, tear resistance, and thickness, T 1006
 Test conditions for fiber glass mat test methods, T
 1008

Glassine papers
 Grease resistance of flexible packaging materials, T
 507
 Turpentine test for voids in glassine and greaseproof
 papers, T 454

Gloss
 Specular gloss of paper and paperboard at 20
 degrees, T 653
 Specular gloss of paper and paperboard at 75°, T
 480

Glucan
 Carbohydrate composition of extractive-free wood
 and wood pulp by gas-liquid chromatography, T
 249

Glue
 see also Adhesion
 In paper (qualitative and quantitative
 determination), T 504
 Organic nitrogen in paper and paperboard, T 418

Glueability
 Polyolefin film surfaces, T 698

Glued lap joints
 see Joints

Graff C stain
 see Fiber analysis, Staining

Grammage
 see Basis weight

Grasses
 Species identification of nonwood plant fibers, T
 259

Gravimetry
 Cross machine profile measurement, T 545
 Water vapor transmission rate of paper and
 paperboard at 23°C and 50% RH, T 448
 Water vapor transmission rate of paper and
 paperboard at high temperature and humidity, T464
 Zinc and cadmium in paper, T 438

Grease resistance
 Flexible packaging materials, T 507
 Grease resistance for paper and paperboard, T 559
 Turpentine test for voids in glassine and greaseproof
 papers, T 454

Greaseproof papers
Grease resistance of flexible packaging materials, T 507
Turpentine test for voids in glassine and greaseproof papers, T 454
Green density
see Density
Green liquor
Analysis of by suppressed ion chromatography, T 699
Suspended solids in, T 692
Green volume
see Volume
Green weight
see Weight
Green-Yorston stain
see Fiber analysis, Staining
Gross heating value
see Heating value
Gross sample
see Sample
Groundwood
Drainage time, T 221
Specific external surface of pulp, T 226
Gum rosin
see Rosin
Gummed papers
Curl of, T 520
Gums
Water solubility of wood and pulp, T 207
Gurley testers
Bending resistance of paper (Gurley-type tester), T 543

H

Halpin-Hicks test
see Rosin
Hammers
Determination of paperboard roll hardness, T 834
Handling stiffness
see Stiffness
Handsheet formers
Forming handsheets for reflectance testing of pulp (sheet machine procedure), T 272
Handsheets
Determination of effective residual ink concentration (ERIC) by infrared reflectance measurement, T 567
Diffuse brightness of paper, paperboard and pulp ($d/0$), T 525
Formation for reflectance testing of pulp, T 272
Forming for reflectance tests of pulp, T 218
Forming handsheets for physical tests of pulp, T 205
Physical testing of pulp handsheets, T 220
Standard conditioning and testing atmospheres for, T 402
Hardness (of pulp)
see Cooking degree

Hardness (of rolls)
Paperboard roll hardness, T 834
Hardwoods
Fiber analysis of paper and paperboard, T 401
Heat
Aging of paper and board with moist heat, T 544
Effect of dry heat on properties of paper and board, T 453
Heat conductivity
see Thermal conductivity
Heat set ink
Blister resistance of coated paper in heatset printing, T 526
Heat setting
Blister resistance of coated paper in heatset printing, T 526
Heat treatment
Aging of paper and board with moist heat, T 544
Effect of dry heat on properties of paper and board, T 453
Heating value
Black liquor, T 684
Hemicelluloses
Alkali solubility of pulp at 25°C, T 235
Determination of gamma-cellulose in pulp, T 203
Extraction of by hot alkali, T 212
Pentosans in wood and pulp, T 223
Hemp
Species identification of nonwood plant fibers, T 259
Hexeneuronic acid
Hexeneuronic acid content of chemical pulp, T 282
Hercules test
see Sized papers
Herzberg stain
see Fiber analysis, Staining
Hide glue
Glue in paper (qualitative and quantitative determination), T 504
High heating value
see Gloss
High-molecular-weight cellulose
see Cellulose
High temperature
Water vapor transmission rate of paper and paperboard at high temperature and humidity, T 464
Horizontal plane method
Coefficients of static and kinetic friction of uncoated writing and printing paper by use of the horizontal plane method, T 549
Horizontal planes
Coefficients of static and kinetic friction of uncoated writing and printing paper by use of the horizontal plane method, T 549
Hot extraction
see Extractives
Hot water extractable alkalinity
see Extractives

- Hot water extracts
See also Extractives
pH and electrical conductivity of hot water extracts of pulp, paper, and paperboard, T 252
- Hot water solubles
see Water solubles
- Humidity
Envelope, seal, seam, and window patch testing, T 516
Equilibrium relative humidity of paper and paperboard, T 502
- Humidity control
Test conditions for fiber glass mat test methods, T 1008
- Humidity rooms
Standard conditioning and testing atmospheres for paper, board and pulp handsheets, T 402
- Hydrocarbons
Acetone extractives of wood and pulp, T 280
Determination of non-volatile hydrocarbons in wood and pulp, T 204
- Hydrochloric acid
Preparation of indicators and standard solutions, T 610
- Hydrogen ion concentration
see pH
- Hydrolysis
Hexeneuronic acid content of chemical pulp, T 282
- Hydroxyproline
Glue in paper (qualitative and quantitative determination), T 504
-
- Identification
Compression wood, T 267
Nonwood plant fibers, T 259
Wire side of paper, T 455
Wood and fibers from conifers, T 263
- Illumination
Light sources for evaluating papers including those containing fluorescent whitening agents, T 1212
Visual grading and color matching of paper, T 515
- Image analysis
Equivalent Black Area (EBA) and count of visible dirt in pulp, paper and paperboard by image analysis, T 563
Macro stickies content in pulp: the “pick-up” method, T 277
Physical area of sub-visible contraries in pulp, paper and paperboard by image analysis, T 568
- Immersion
see Submersion
- Impact
Internal bond strength (Scott type), T 569
- Impact strength
Fiberboard shipping containers, T 801
- Impact tests
Drop test for fiberboard shipping containers, T 802
Drum test for fiberboard shipping containers, T 800
- Fiberboard shipping containers, T 801
- Impurities
Acid-insoluble ash in wood, pulp, paper, and paperboard, T 244
Laboratory screening of pulp (MasterScreen-type instrument), T 274
Macro stickies content in pulp: the “pick-up” method, T 277
Pulp screening (Valley-type screening device), T 278
Silicates and silica in pulp (wet ash method), T 245
- Inclined planes
Coefficient of static friction (slide angle) of packaging and packaging materials (including shipping sack papers, corrugated and solid fiberboard) (inclined plane method), T 815
Impact resistance of fiberboard shipping containers, T 801
- Indicators
Preparation of, T 610
- Industrial process water
see Process water
- Ink
Blotting paper absorption of, T 431
Castor-oil penetration test for paper, T 462
Determination of effective residual ink concentration (ERIC) by infrared reflectance measurement, T 567
Size test for paper by ink resistance (Hercules-type method), T 530
Titanium dioxide content in, T 627
- Ink absorption
Ink absorbency of blotting paper, T 431
Size test for paper by ink resistance (Hercules-type method), T 530
- Ink absorptivity
see Absorptivity
- Ink resistance
see Printability
- Ink rub resistance
Containerboard, T 830
- Inorganic color pigments
see Pigments
- Insoluble matter
see Solubility
- Instrument characteristics
Acceptance procedures for calibration laboratories, T 1211
- Insulating board
Drainage time of pulp for, T 1002
Forming for physical tests, T 1001
- Interfiber bonding
see Fiber bonding
- Interlaboratory evaluation
Test methods used with paper and paper products, T 1200
- Internal bond
see also Bond strength
Internal bond strength (Scott type), T 569

Internal fiber bond strength
 see Bond strength

Internal tear
 see Tear strength

Iodine
 Preparation of indicators and standard solutions, T 610

Ion chromatography
 Analysis of pulping liquors by suppressed ion chromatography, T 699

Ion exchange
 Carboxyl content of pulp, T 237

Iron
 Acid-soluble iron in paper, T 434
 Analysis of caustic soda, T 613
 Analysis of limestone, T 618
 Analysis of salt cake, T 619
 Analysis of sulfuric acid, T 602
 In pulp and paper by atomic absorption spectroscopy, T 266

Iron oxide
 Analysis of limestone, T 618

ISO
 see Units of measurement

ISO brightness
 see Diffuse reflection

J

No listings

K

Kantrowitz-Simmons stain
 see Fiber analysis, Staining

Kaolin
 Accelerated test for viscosity stability of clay slurries, T 697

Kaolin clay dispersion
 see Clay

Kappa number
 Kappa number of pulp, T 236

Kenaf
 Species identification of nonwood plant fibers, T 259

Kinetic friction
 Coefficients of static and kinetic friction of uncoated writing and printing paper by use of the horizontal plane method, T 549

Kjeldahl procedure
 see Nitrogen

Klemm method
 see Blotting papers

Kraft liquor
 Suspended solids in, T 692

Kraft pulps
 see Pulps

Kubelka-Munk
 Determination of effective residual ink concentration (ERIC) by infrared reflectance measurement, T 567

L

L, a, b color values
 see Color

Laboratories
 Acceptance procedures for calibration laboratories, T 1211

Laboratory beating
 Laboratory beating of pulp (PFI mill method), T 248
 Laboratory beating of pulp (Valley beater method), T 200

Laboratory pulp processing
 see Laboratory beating

Laboratory refining
 Laboratory beating of pulp (PFI mill method), T 248
 Laboratory beating of pulp (Valley beater method), T 200

Lactates
 Analysis of pulping liquors by suppressed ion chromatography, T 699

Lap joints
 see also Joints
 Testing adhesives used in glued lap joints of corrugated fiberboard containers, T 840

Latency
 Preparation of mechanical pulps for testing, T 262

Length
 Weight-volume measurement of pulpwood, T 268

Liebermann-Storch test
 see Rosin

Life tests
 Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572
 Accelerated temperature aging of printing and writing paper by dry oven exposure apparatus, T 573

Lift strength
 see Surface strength

Light
 Dirt in paper and paperboard, T 437

Light sources
 Light sources for evaluating papers including those containing fluorescent whitening agents, T 1212
 Visual grading and color matching of paper, T 515

Light-scattering coefficient
 see Optical scattering

Lignin
 In wood and pulp, T 222
 Kappa number of pulp, T 236

Lime
 Analysis of, T 617

Analysis of salt cake, T 619
Limestone
 Analysis of, T 618
Linearity
 Photometric linearity of optical properties instruments, T 1217
Liner separation
 see Separation
Linerboards
 Bursting strength, T 807
 Roughness of paper and paperboard, stylus method (Emveco-type), T 575
Liquors
 Analysis of pulping liquors by suppressed ion chromatography, T 699
Lofton-Merritt stain
 see Fiber analysis, Staining
Logs
 see also Wood
 Basic density and moisture content of pulpwood, T 258
 Sampling and preparing wood for analysis, T 257
 Weight-volume measurement of pulpwood, T 268
Lorentzen & Wettre-type tester
 see Stiffness
Loss on heating
 see Weight
Loss on ignition
 Analysis of talc, T 665
 Fiber glass mats, T 1013
 Limestone, T 618
Lot acceptance
 see Acceptability
Low-density polyethylene (LDPE)
 Rheological measurements for characterization of polyolefins: low-density polyethylene (LDPE) for extrusion coating, T 702
Luminosity
 Color of paper and paperboard (45/0, C/2), T 524
 Color of paper and paperboard (d/0, C/2), T 527
Luminous factor
 see Reflectance
Luminous reflectance
 Indices for whiteness, yellowness, brightness, and luminous reflectance factor, T 1216

M

Machine direction
 Grammage variation measurement (gravimetric method), T 546
 Of paper and paperboard, T 409
Magnesia
 see Magnesium oxide
Magnesium oxide (magnesia)
 Analysis of limestone, T 618
 Analysis of salt cake, T 619
 Analysis of talc, T 665

Magnesium silicate
 Analysis of talc, T 665
Manganese
 In pulp and paper by atomic absorption spectroscopy, T 266
Manila hemp
 Species identification of nonwood plant fibers, T 259
Mannan
 Carbohydrate composition of extractive-free wood and wood pulp by gas-liquid chromatography, T 249
Manufacturer's joint
 Tensile test for the manufacturer's joint of fiberboard shipping containers, T 813
Mass per unit area
 see Grammage
Mass transfer
 Dynamic measurement of water vapor transfer through sheet materials, T 523
 Static creasing of paper for water vapor transmission tests, T 465
 Water vapor transmission rate of sheet materials at standard temperature and humidity, T 448
Mats
 see Fiber glass mats
Measurement
 Units of, T 1210
Measuring instruments
 Acceptance procedures for calibration laboratories, T 1211
Mechanical properties
 see specific property, e.g., Burst strength
Mechanical pulps
 Preparation of for testing, T 262
 Pulp screening (Valley-type screening device), T 278
 Screening of pulp (Somerville-type equipment), T 275
Melamine-formaldehyde resins
 see Polymelamines
Melamine resins
 see Polymelamines
Metals
 see specific metal, e.g., Iron, *etc.*
Methyl orange
 see Indicators, preparation of
Methyl red
 see Indicators, preparation of
Metric system
 see Units of measurement
Microbiological examination
 see Microbiology
Microbiology
 Bacteriological examination of paper and paperboard, T 449
 Microbiological enumeration of process water and slush pulp, T 631
Micrometer
 Thickness of paper and paperboard, T 411

Microorganism control
 Bacteriological examination of paper and paperboard, T 449
 Microbiological enumeration of process water and slush pulp, T 631

Microscopy
 Fiber analysis of paper and paperboard, T 401
 Identification of wood and fibers from conifers, T 263

Mineral acids
 see Inorganic acids

Mineral coating
 see Coatings

Mineral components
 see Minerals

Mineral constituents
 see Ash content

Mineral fillers
 see Fillers

Mineral oil
 see Oil absorbency

Mineral pigments
 see Pigments

Mineral salts
 see Ash content

Minerals
 Brightness of clay and other mineral pigments (45/0), T 646
 Brightness of clay and other mineral pigments (d/0 diffuse), T 534
 Determination of titanium dioxide, T 627

Mixed waste papers
 Macro stickies content in pulp: the “pick-up” method, T 277

MIT folding testers
 Folding endurance of paper (MIT tester), T 511

Modulus of elasticity
 see Elastic strength

Modulus of rupture
 see Rupture modulus

Moist heat
 see Heat

Moisture
 see also Moisture content
 Sampling and testing wood pulp shipments for moisture, T 210

Moisture content
 Analysis of rosin size, T 628
 Equilibrium moisture in pulp, paper and paper board for chemical analysis, T 550
 Fiber glass mats, T 1012
 Moisture in pulp, paper and paperboard, T 412
 Preparation of wood for chemical analysis, T 264
 Pulpwood, T 258
 Salt cake, T 619
 Sampling and testing wood pulp shipments for moisture, T 210

Moisture sensitivity,
 Fiber glass mats, T 1014

Monosaccharides
 Carbohydrate composition of extractive-free wood and wood pulp by gas-liquid chromatography, T 249

Morphological characteristics
 see Fiber analysis

Morris method
 see Edge crush resistance

Mullen
 see Burst strength

Multi-ply boards
 see Corrugated boards

Multiwall bags
 Coefficient of static friction (slide angle) of packaging and packaging materials (including shipping sack papers, corrugated and solid fiberboard) (inclined plane method), T 815

N

NIR (Near infrared reflectance)
 see Reflectance

Nail resistance
 see Edge nail strength

Napkin papers
 Tensile properties of towel and tissue products (using constant rate of elongation apparatus), T 576

Natural dirt
 Natural dirt in wood chips, T 265

NCR stain
 see Fiber analysis, Staining

Neckdown
 see Edge crush resistance

Neutral sulfite pulps
 see Pulps

Nitrogen
 Organic nitrogen in paper and paperboard, T 418

Nitrogen compounds
 Organic nitrogen in paper and paperboard, T 418

Nitrogen oxides
 Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572

Nomenclature
 Optical measurement terminology (related to appearance evaluation of paper), T 1500

Nonbibulous paperboard
 see Sized papers

Nonbibulous papers
 see Sized paper/paperboard

Nonvolatile matter
 see Volatility

Nonwood fibers
 Species identification of nonwood plant fibers, T 259

Nonwood plants
 Species identification of, T 259

Nonwovens

see also Insulating boards

Specimen preparation for cross directional internal tearing resistance for paper, paperboard and related materials, T 496

O

Oat straw

Species identification of nonwood plant fibers, T 259

OCR

Dirt count in paper and paperboard (optical character recognition - OCR), T 537

Odors

Packaging materials, T 483

Oil

Grease resistance for paper and paperboard, T 559

Oil absorption

Castor-oil penetration test for paper, T 462

Oil penetration tests

Castor-oil penetration test for paper, T 462

Turpentine test for voids in glassine and greaseproof papers, T 454

Oil resistance/repellance

see Grease resistance

Okra

Species identification of nonwood plant fibers, T 259

Opacity

Determination of effective residual ink concentration (ERIC) by infrared reflectance measurement, T 567

Diffuse opacity of paper, T 519

Interrelation of reflectance, R_0 ; reflectivity, R_∞ ; TAPPI opacity, $C_{0.89}$; scattering, s ; and absorption, k , T 1214

Measurement of paper, T 425

Opaque pigments

see Pigments

Optical character recognition

see OCR

Optical instruments

Photometric linearity of optical properties instruments, T 1217

The determination of instrumental color differences, T 1215

Optical measurement

Fiber length of pulp and paper by automated optical analyzer, T 271

Optical measurement terminology (related to appearance evaluation of paper), T 1500

Storage of paper samples for optical measurements and color matching, T 1219

The determination of instrumental color differences, T 1215

Optical microscopy

see Microscopy

Optical properties

Photometric linearity of optical properties instruments, T 1217

Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572

Organic matter

Organic nitrogen in paper and paperboard, T 418

Oven-dry density

see Density

Oven-dry volume

see Volume

Oven-dry weight

see Weight

Oxalate

Determination of in pulping liquor, T 699

P

Packaging materials

Coefficient of static friction (slide angle) of packaging and packaging materials (including shipping sack papers, corrugated and solid fiberboard) (inclined plane method), T 815

Creasing of flexible packaging material paper specimens for testing, T 512

Grease resistance of, T 507

Odor of, T 483

Water vapor transfer through, T 523

Packaging paper

Coefficient of static friction (slide angle) of packaging and packaging materials (including shipping sack papers, corrugated and solid fiberboard) (inclined plane method), T 815

Creasing of flexible packaging material paper specimens for testing, T 512

Paper

see also specific properties, e.g., Grammage, Thickness, *etc.*

Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572

Accelerated temperature aging of printing and writing paper by dry oven exposure apparatus, T 573

Acceptance sampling, T 400

Acid-soluble iron in paper, T 434

Aging of paper and board with moist heat, T 544

Air permeance of paper and paperboard (Sheffield method), T 547

Alkalinity as calcium carbonate (alkaline reserve), T 553

Alpha-cellulose content, T 429

Ash content, acid-insoluble, T 244

Ash content, combustion at 525°C, T 211

Ash content, combustion at 900°C, T 413

Bacteria count, T 449

Bending resistance of paper (Gurley-type tester), T 543

Bending resistance of paper and paperboard (Lorentzen & Wettre type tester, T 556)
 Bending resistance (stiffness) of paper and paperboard (Taber-type tester in basic configuration), T 489
 Bending resistance (stiffness) of paper (Taber-type tester in 0 to 10 Taber stiffness unit configuration), T 566
 Blister resistance of coated paper in heatset printing, T 526
 Brightness, T 452, T 525
 Bulking number, T 500
 Bursting strength, T 403
 Coefficients of static and kinetic friction of uncoated writing and printing paper by use of the horizontal plane method, T 549
 Color, T 527
 Color matching, T 515
 Color of paper and paperboard (45/0, C/2), T 524
 Colorimetry, T 515
 Copper number, T 430
 Creasing of flexible packaging material paper specimens for testing, T 512
 Curl, T 520
 Determination of effective residual ink concentration (ERIC) by infrared reflectance measurement, T 567
 Diffuse opacity, T 519
 Dirt content, T 437
 Dirt count, T 537
 Dry heat aging affects, T 453
 Dynamic measurement of water vapor transfer through sheet materials, T 523
 Element analysis by atomic absorption, T 266
 Equilibrium moisture content, T 550
 Equilibrium relative humidity, T 502
 Equivalent Black Area (EBA) and count of visible dirt in pulp, paper and paperboard by image analysis, T 563
 Fiber analysis, T 401
 Fiber length, T 271
 Flame resistance, T 461
 Folding endurance, T 511
 Folding endurance of paper (Schopper type tester), T 423
 Glue content, T 504
 Grease resistance for paper and paperboard, T 559
 Grease resistance of flexible packaging materials, T 507
 Hot water extractable acidity or alkalinity, T 428
 Hydrogen ion concentration of paper extracts (cold extraction method), T 509
 Hydrogen ion concentration of paper extracts (hot extraction method), T 435
 Identification and determination of melamine resin in paper, T 493
 Ink absorbency, T 431
 Internal tearing resistance of paper (Elmendorf-type method), T 414
 Light sources for evaluating papers including those containing fluorescent whitening agents, T 1212
 Liquid penetration resistance, T 530
 Machine direction determination, T 409
 Moisture content, T 412, T 550
 Nitrogen content, T 418
 Oil penetration, T 462
 Opacity, T 425
 pH and electrical conductivity of hot water extracts of pulp, paper, and paperboard, T 252
 Pick resistance, T 459
 Physical area of sub-visible contraries in pulp, paper and paperboard by image analysis, T 568
 Reducible sulfur in paper and paperboard, T 406
 Rosin content, T 408
 Roughness, T 555
 Roughness, stylus method (Emveco-type), T 575
 Silver tarnishing by paper and paperboard, T 444
 Smoothness (Bekk method), T 479
 Specimen preparation for cross directional internal tearing resistance for paper, paperboard and related materials, T 496
 Specular gloss, T 480
 Specular gloss of paper and paperboard at 20 degrees, T 653
 Standard conditioning/testing atmospheres for, T 402
 Starch in paper, T 419
 Static creasing of paper for water vapor transmission tests, T 465
 Surface pH, T 529
 Surface strength, T 459
 Surface wettability, T 458, T 558
 Tensile breaking strength of water-saturated paper and paperboard ("wet tensile strength"), T 456
 Tensile properties of paper and paperboard (using constant rate of elongation apparatus), T 494
 Thickness, T 411, T 551
 Titanium dioxide, T 627
 Turpentine test for voids in glassine and greaseproof papers, T 454
 Visual grading, T 515
 Water absorbency, T 432
 Water absorptiveness of sized (non-bibulous) paper, paperboard, and corrugated fiberboard (Cobb test), T 441
 Water resistance, T 433
 Water vapor transmission rate of sheet materials at standard temperature and humidity, T 448
 Water-soluble chlorides in, T 256
 Water-soluble sulfates in, T 255
 Wax in pulp and paperboard, T 574
 Wettability, T 458
 Wire side, identification of, T 455
 Zero-span breaking strength of pulp (dry zero-span tensile), T 231
 Zinc and cadmium in paper, T 438
 Paper coating clays
 see Clay
 Paper properties
 Aging of paper and board with moist heat, T 544

- Effect of dry heat on, T 453
- Paper sheets
 - Dynamic measurement of water vapor transfer through sheet materials, T 523
 - Water vapor transmission rate of sheet materials at standard temperature and humidity, T 448
- Paper shipping sacks
 - see* Shipping sack papers
- Paper towels
 - Tensile properties of towel and tissue products (using constant rate of elongation apparatus), T 576
- Paperboard
 - see also* Corrugated board, Fiberboard; *see also specific properties, e.g.,* Abrasion resistance, Brightness, *etc.*
 - Acid-insoluble ash in, T 244
 - Acid-soluble iron in paper, T 434
 - Aging of paper and board with moist heat, T 544
 - Air permeance of paper and paperboard (Sheffield method), T 547
 - Ash content, T 211, T 413
 - Bacteria content, T 449
 - Bending number of paperboard, T495
 - Bending resistance (stiffness) of paper and paperboard (Taber-type tester in basic configuration), T 489
 - Bending resistance of paper (Gurley-type tester), T 543
 - Bending resistance of paper and paperboard (Lorentzen & Wettre type tester, T 556
 - Blister resistance of coated paper in heatset printing, T 526
 - Brightness, T 452, T 525
 - Coefficient of static friction (slide angle) of packaging and packaging materials (including shipping sack papers, corrugated and solid fiberboard) (inclined plane method), T 815
 - Color of paper and paperboard (45/0, C/2), T 524
 - Colorimetry, T 527
 - Copper number, T 430
 - Dirt, T 437, T 537
 - Dry heat, effect of, T 453
 - Dynamic measurement of water vapor transfer through sheet materials, T 523
 - Equilibrium moisture in pulp, paper and paperboard for chemical analysis, T 550
 - Equilibrium relative humidity, T 502
 - Equivalent black area (EBA) and count of visible dirt in pulp, paper and paperboard by image analysis, T 563
 - Fiber analysis of, T 401
 - Flame resistance, T 461
 - Gloss, T 653
 - Grease resistance test for paper and paperboard, T 559
 - Internal bond strength of paperboard (z-direction tensile), T 541
 - Machine direction, T 409
 - Moisture content, T 412
 - Organic nitrogen, T 418
 - pH and electrical conductivity of hot water extracts of pulp, paper, and paperboard, T 252
 - Physical area of sub-visible contraries in pulp, paper and paperboard by image analysis, T 568
 - Reducible sulfur in paper and paperboard, T 406
 - Ring crush, T 818, T 822
 - Rosin, T 408
 - Roughness, T 555
 - Roughness, stylus method (Emveco-type), T 575
 - Sampling and accepting a single lot of, T 400
 - Score bend test, T 577
 - Silver tarnishing by paper and paperboard, T 444
 - Size test for paper by ink resistance (Hercules-type method), T 530
 - Specimen preparation for cross directional internal tearing resistance for paper, paperboard and related materials, T 496
 - Specular gloss of paper and paperboard at 75°, T 480
 - Standard conditioning and testing atmospheres for, T 402
 - Stiffness, T 836
 - Surface strength of paper (wax pick test), T 459
 - Surface wettability, T 458, T 558
 - Tensile breaking strength of water-saturated paper and paperboard (“wet tensile strength”), T 456
 - Tensile properties of paper and paperboard (using constant rate of elongation apparatus), T 494
 - Thickness, T 411, T 551
 - Water absorptiveness of sized (non-bibulous) paper, paperboard, and corrugated fiberboard (Cobb test), T 441
 - Water immersion number of paperboard, T 491
 - Water vapor transmission rate of paper and paperboard at 23°C and 50% RH, T 448
 - Wax in pulp and paper, T 574
 - Zero-span breaking strength of pulp (dry zero-span tensile), T 231
- Papermaking fibers
 - see* Fibers
- Papers, impregnated
 - see* Impregnated papers
- Paraffin wax
 - In pulp, paper and paperboard, T 574
- Parchment papers
 - Grease resistance of flexible packaging materials, T 507
 - Turpentine test for voids in glassine and greaseproof papers, T 454
- Paste size
 - see* Rosin size
- Pastes
 - see* Pigments
- Penetration
 - Castor-oil test for paper, T 462
 - Size test for paper by ink resistance (Hercules-type method), T 530
- Pentosans
 - Pentosans in wood and pulp, T 223

Permeability
see also Air permeability
 Water vapor transmission rate of sheet materials at normal temperature, T 448

Permeance
see Permeability

Permanence
 Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572
 Accelerated temperature aging of printing and writing paper by dry oven exposure apparatus, T 573

Petroleum wax
see Paraffin wax

PFI mills
 Laboratory beating of pulp (PFI mill method), T 248

pH
 Hydrogen ion concentration (pH) of paper extracts (cold extraction method), T 509
 Hydrogen ion concentration (pH) of paper extracts (hot extraction method), T 435
 pH and electrical conductivity of hot water extracts of pulp, paper, and paperboard, T 252
 Surface pH measurement of paper, T 529

Phenol red
see Indicators, preparation of

Phenolphthalein
see Indicators, preparation of

Photometers
 Color of paper and paperboard (*d*/0, *C*/2), T 527
 Color of paper and paperboard (45/0, *C*/2), T 524

Photometry
 Photometric linearity of optical properties instruments, T 1217

Physical properties
 Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572
 Accelerated temperature aging of printing and writing paper by dry oven exposure apparatus, T 573

Physical tests
 Forming insulating boards for, T 1001
 Physical testing of pulp handsheets, T 220

Phytosterols
 Determination of in wood and pulp, T 204

Pick resistance
 Surface strength of paper, T 459

Picking
 Internal bond strength (Scott type), T 569

Pigment
see also Fillers
 Ash in wood, pulp, paper and paperboard: combustion at 900°C, T 413
 Brightness of clay and other mineral pigments (45/0), T 646
 Brightness of clay and other mineral pigments (*d*/0 diffuse), T 534

Sampling, T 657
 Titanium dioxide in, T 627
 Zinc and cadmium in paper, T 438

Pin adhesion tests
 Corrugated board by selective separation, T 821

Pitch
 Acetone extractives of wood and pulp, T 280
 Wood pulp, T 204

Plant fibers
 Species identification of nonwood plant fibers, T 259

Plastic films
 Dynamic measurement of water vapor transfer through sheet materials, T 523
 Surface tension measurement, T 698

Plastics
 Pulp screening (Valley-type screening device), T 278
 Screening of pulp (Somerville-type equipment), T 275

Ply separation
 Solid and corrugated fiberboard, T 812

Polarography
 Zinc and cadmium in paper, T 438

Polarized light
 Fiber length of pulp and paper by automated optical analyzer using polarized light, T 271

Polychromatic illumination
see Spectral reflectance

Polyethylene
 Wetting tension of, T 698

Polyethylene adhesion
see Adhesion, Polyethylene

Polymelamines
 Identification and determination of melamine resin in paper, T 493
 Organic nitrogen in paper and paperboard, T 418

Polyolefin film
see Films

Polyolefins
 Determination of wetting tension of polymeric films and coated surfaces via the Mayer rod technique, T 552

Polypropylene
 Wetting tension of, T 698

Polysulfides
 Analysis of soda and sulfate white and green liquors, T 624
 Reducible sulfur in paper and paperboard, T 406

Polythionates
 Reducible sulfur in paper and paperboard, T 406

Polyureas
 Analysis of formaldehyde in aqueous solutions and of free formaldehyde in resins, T 600
 Organic nitrogen in paper and paperboard, T 418

Porosity
 Air permeance of paper and paperboard (Sheffield method), T 547
 Air resistance of paper (Gurley method), T 460
 Castor-oil penetration test for paper, T 462

- Resistance of paper to passage of air (high-pressure Gurley method), T 536
- Porous substrates
 - see* Substrates
- Potassium dichromate
 - Preparation of indicators and standard solutions, T 610
- Potassium hydroxide
 - Preparation of indicators and standard solutions, T 610
- Potassium permanganate
 - Preparation of indicators and standard solutions, T 610
- Potassium thiocyanate
 - Preparation of indicators and standard solutions, T 610
- Potassium titanate
 - see* Pigments
- Precision
 - Interlaboratory evaluation of test methods to determine, T 1200
- Preconditioning
 - see* Conditioning
- Preparation
 - see* Sample preparation
- Preparation of solutions
 - see* Standard solutions
- Preservation of paper
 - see* Permanence
- Print quality
 - see* Printability
 - Roughness of paper and paperboard (Sheffield method), T 538
- Printability
 - Determination of wetting tension of polymeric films and coated surfaces via the Mayer rod technique, T 552
 - Polyolefin film surfaces, T 698
 - Roughness of paper and paperboard (Print-Surf method), T 555
 - Roughness of paper and paperboard, stylus method (Emveco-type), T 575
 - Surface wettability of paper (angle of contact method), T 458
- Printing
 - Blister resistance of coated paper in heatset printing, T 526
 - Surface wettability and absorbency of sheeted materials using an automated contact angle tester, T 558
- Printing ink
 - see* Ink
- Printing opacity
 - see* Opacity
- Printing paper
 - see also* Paper
 - Blister resistance of coated, T 526
 - Coefficients of static and kinetic friction of uncoated writing and printing paper by use of the horizontal plane method, T 549
- Print-Surf method
 - see* Smoothness
- Probability sampling plan
 - see* Sampling
- Process water
 - Microbiological enumeration of, T 631
- Processing of pulp
 - see* Laboratory beating
- Profile
 - Cross-machine grammage profile measurement (gravimetric method), T 545
 - Machine direction grammage variation measurement (gravimetric method), T 546
- Projection
 - Fiber length of pulp, T 232
 - Surface wettability of paper (angle of contact method), T 458
- Propionate
 - Analysis of pulping liquors by suppressed ion chromatography, T 699
- Pulp
 - Acetone extractives of wood and pulp, T 280
 - Acid-insoluble ash content, T 244
 - Acid-insoluble lignin content, T 222
 - Alkali solubility at 25°C, T 235
 - Alpha-, beta-, gamma-cellulose fraction determination, T 203
 - Ash content, T 211, T 413
 - Brightness, T 452, T 525
 - Carbohydrate composition, T 249
 - Carboxyl group content, T 237
 - Consistency concentration, T 240
 - Copper number, T 430
 - Dirt in pulp, T 213
 - Dirt in pulp, paper and paperboard by image analysis, T 563
 - Drainage time, T 221, T 1002
 - Effective fiber length index by zero/short-span tensile testing, T 279
 - Element analysis by atomic absorption, T 266
 - Equivalent Black Area (EBA) and count of visible dirt in pulp, T 213
 - Fiber coarseness, T 234
 - Fiber length (automated optical analyzer), T 271
 - Fiber length (classification), T 233
 - Fiber length (projection), T 232
 - Forming insulating boards for physical tests, T 1001
 - Freeness, T 227
 - Kappa number of pulp, T 236
 - Laboratory beating of pulp (PFI mill method), T 248
 - Laboratory beating of pulp (Valley beater method), T 200
 - Laboratory screening of pulp (MasterScreen-type instrument), T 274
 - Macro stickies content in pulp: the "pick-up" method, T 277
 - Microbiological enumeration, T 631
 - Moisture content, T 210, T 412, T 550
 - Pentosans in wood and pulp, T 223

pH and electrical conductivity of hot water extracts of pulp, paper, and paperboard, T 252
Physical area of sub-visible contraries in pulp, paper and paperboard by image analysis, T 568
Physical testing of pulp handsheets, T 220
Physical tests, T 262
Reflectance, T 218, T 272
Silicate/silica content, T 245
Sodium hydroxide (1%) solubility, T 212
Solvent extractives determination, T 204
Specific external surface, T 226
Sulfur dioxide in sulfite cooking liquor, T 604
Viscosity, T 230, T 254
Water solubility, T 207
Water soluble chlorides in, T 256
Water soluble sulfates in, T 255
Wax in paper and paperboard, T 574
Zero-span breaking strength, T 231

Pulp bales
see Baled pulp

Pulp dispersion apparatus
see Pulp

Pulp fibers
see Fibers

Pulp handsheets
see Handsheets

Pulp properties
Forming handsheets for physical tests of pulp, T 205

Pulp quality
see Pulp

Pulp slush stock
see Slush pulps

Pulp suspensions
see Pulp

Pulp tests
Forming handsheets for physical tests of pulp, T 205

Pulp yields
Compression wood identification in pulpwood, T 267

Pulping
Pulp screening (Valley-type screening device), T 278

Pulping liquors
see Liquors, *or see specific liquor, e.g.,* White liquor, Black liquor, *etc.*

Pulpwood
see also Wood
Weight-volume measurement of pulpwood, T 268

Pulpwood chips
see Chips

Pulpwood fibers
see Fibers

Puncture resistance
Container board, T 803

Puncture tests
Puncture test of containerboard, T 803

Purified calfskin gelatin
Glue in paper (qualitative and quantitative

determination), T 504

Q

Qualitative analysis
Starch in paper, T 419

Quality control
Sampling and accepting a single lot of paper, paperboard, containerboard, or related product, T 400

Quantitative analysis
Reducible sulfur in paper and paperboard, T 406
Starch in paper, T 419

R

Ramie
Species identification of nonwood plant fibers, T 259

Raspail test
see Rosin

Rate of elongation
see Tensile strength

Reagents
Preparation of indicators and standard solutions, T 610

Ream weight
see Basis weight

Reclaimed fibers
Macro stickies content in pulp: the "pick-up" method, T 277
Screening of pulp (Somerville-type equipment), T 275

Recycling
Pulp screening (Valley-type screening device), T 278
Screening of pulp (Somerville-type equipment), T 275

Reducible sulfur
Reducible sulfur in paper and paperboard, T 406
Silver tarnishing by paper and paperboard, T 444

Reeds
Species identification of nonwood plant fibers, T 259

Refining
see Laboratory beating

Reflectance
see also Brightness
Brightness of clay and other mineral pigments (45/0), T 646
Brightness of pulp, paper, and paperboard (directional reflectance at 457 nm), T 452
Calibration of reflectance standards for hemispherical geometry, T 1218
Color of paper and paperboard (45/0, C/2), T 524
Color of paper and paperboard (d/0, C/2), T 527
Determination of effective residual ink concentration (ERIC) by infrared reflectance measurement, T 567
Diffuse opacity of paper (d/0 paper backing), T 519

Dirt in paper and paperboard, T 437
Forming handsheets for reflectance testing of pulp, T 218
Indices for whiteness, yellowness, brightness, and luminous reflectance factor, T 1216
Interrelation of reflectance, R_0 ; reflectivity, R_∞ ; TAPPI opacity, $C_{0.89}$; scattering, s ; and absorption, k , T 1214
Opacity of paper (15/d geometry, illuminant A/2°, 89% reflectance backing and paper backing), T 425
Size test for paper by ink resistance (Hercules-type method), T 530
Testing of pulp handsheets for, T 272
Reflectance factor
 see Reflectance
Reflectometry
 see Reflectance
Reflectivity
 Interrelation of reflectance, R_0 ; reflectivity, R_∞ ; TAPPI opacity, $C_{0.89}$; scattering, s ; and absorption, k , T 1214
Relative humidity
 see Humidity
Remoistening adhesives
 Curl of flat gummed papers, T 520
Repeatability
 Interlaboratory evaluation of test methods to determine, T 1200
Repellance
 Grease resistance for paper and paperboard, T 559
Reproducibility
 Interlaboratory evaluation of test methods to determine, T 1200
Repulping
 Pulp screening (Valley-type screening device), T 278
Resin
 see also Wood resin, Rosin
 Analysis of formaldehyde in aqueous solutions and of free formaldehyde in resins, T 600
 Identification and determination of melamine resin in paper, T 493
Resin acids
 Acetone extractives of wood and pulp, T 280
Resistance
 Bending resistance (stiffness) of paper (Taber-type tester in 0 to 10 Taber stiffness unit configuration), T 566
Resistance to bending
 Bending resistance (stiffness) of paper and paperboard (Taber-type tester in basic configuration), T 489
Resistivity
 see Conductivity
Resonance length method
 see Stiffness
Revolutions
 Laboratory beating of pulp (PFI mill method), T 248

Revolving hexagonal drum
 see Impact tests
Rheology
 Rheological measurements for characterization of polyolefins: low-density polyethylene (LDPE) for extrusion coating, T 702
Rice straw
 Species identification of nonwood plant fibers, T 259
Rigid support method
 see Flat crush resistance
Rigidity
 see Stiffness
Ring crush tests
 Paperboard (flexible beam method), T 818
 Paperboard (rigid support method), T 822
Roese-Gottlieb method
 see Casein, analysis of
Rolls (paperboard)
 see Wound rolls
Rosin
 Analysis of, T 621
 Analysis of rosin size, T 628
 In paper and paperboard, T 408
Rosin size
 Analysis of rosin size, T 628
Rotating spindle viscometer
 see Viscosity
Roughness
 see also Smoothness
 Roughness of paper and paperboard (Sheffield method), T 538
 Stylus method (Emveco-type), T 575
Ruling quality
 see Printability
Rupture work
 Tensile properties of paper and paperboard (using constant rate of elongation apparatus), T 494
Rutile titanium dioxide
 see Pigments
Rye straw
 Species identification of nonwood plant fibers, T 259

S

Salt cake
 Analysis of, T 619
Sample preparation
 Creasing of flexible packaging material paper specimens for testing, T 512
 Specimen preparation for cross directional internal tearing resistance for paper, paperboard and related materials, T 496
 Wood for analysis, T 257
 Wood for chemical analysis, T 264
Samples
 Storage of paper samples for optical measurements and color matching, T 1219

- Sampling
 - Fillers and pigments, T 657
 - Pulp for moisture, T 210
 - Sample location for fiber glass mat sheets, T 1007
 - Single lot of paper and paperboard, T 400
 - Testing of fiber glass mats: use of modified TAPPI procedures for sampling and lot acceptance, stiffness, tear resistance, and thickness, T 1006
 - Weight-volume measurement of pulpwood, T 268
 - White waters, T 656
 - Wood for analysis, T 257
- Sand
 - Analysis of rosin, T 621
- Sanitary tissues
 - see* Tissue papers
- Saponification number
 - Analysis of rosin, T 621
- Saturation
 - Tensile breaking strength of water-saturated paper and paperboard (“wet tensile strength”), T 456
- Sawdust
 - Sampling and preparing wood for analysis, T 257
- Scattering
 - Determination of effective residual ink concentration (ERIC) by infrared reflectance measurement, T 567
 - Interrelation of reflectance, R_0 ; reflectivity, R_∞ ; TAPPI opacity, $C_{0.89}$; scattering, s ; and absorption, k , T 1214
 - Opacity of paper (15/d geometry, illuminant A/2°, 89% reflectance backing and paper backing), T 425
- Scattering coefficient
 - see* Optical scattering
- Schopper-type tester
 - see* Folding endurance
- Score bend efficiency
 - Score bend test, T 577
- Score-line rupture
 - see* Scores
- Scores
 - Score bend test, T 577
 - Quality test, T 829
- Scoring
 - Bending number of paperboard, T495
- Scott bond
 - see* Internal bond
- Screen residue
 - see* Mesh residue
- Screening
 - Laboratory screening of pulp (MasterScreen-type instrument), T 274
 - Macro stickies content in pulp: the “pick-up” method, T 277
 - Pulp screening (Valley-type screening device), T 278
 - Screening of pulp (Somerville-type equipment), T 275
- Screens
 - Fiber length of pulp by classification, T 233
- Seal adhesion
 - see* Sealants
- Sealants
 - Envelope seal, seam, and window patch testing, T 516
- Seals
 - see* Window envelopes
- Seams
 - see* Window envelopes
- Sedimentation method
 - see* Particle size distribution
- Selleger's stain
 - see* Fiber analysis, Staining
- Sensitivity
 - Moisture sensitivity of fiber glass mats, T 1014
- Separation
 - Laboratory screening of pulp (MasterScreen-type instrument), T 274
 - Of liner from medium (pin adhesion test), T 821
 - Screening of pulp (Somerville-type equipment), T 275
- Sheet formation
 - see* Formation
- Sheet machines (laboratory)
 - see* Handsheet formers
- Sheet materials
 - see* Sheets
- Sheets
 - Dynamic measurement of water vapor transfer through sheet materials, T 523
 - Water vapor transmission rate of sheet materials at standard temperature and humidity, T 448
- Sheffield method
 - see* Smoothness, Air permeability
- Sheffield smoothness
 - Roughness of paper and paperboard (Sheffield method), T 538
- Shipping containers
 - see also* Containers
 - Coefficient of static friction (slide angle) of packaging and packaging materials (including shipping sack papers, corrugated and solid fiberboard) (inclined plane method), T 815
 - Tensile test for the manufacturer's joint of fiberboard shipping containers, T 813
 - Testing adhesives used in glued lap joints of corrugated fiberboard containers, T 840
- Shives
 - Laboratory screening of pulp (MasterScreen-type instrument), T 274
 - Pulp screening (Valley-type screening device), T 278
 - Screening of pulp (Somerville-type equipment), T 275
- Shock
 - Drum test for fiberboard shipping containers, T 800
- Short column test
 - see* Edge crush resistance
- Short-span tensile strength
 - Effective fiber length index by zero/short-span

- tensile testing, T 279
- SI units
 - see* Units of measurement
- Sides
 - Identification of wire side of paper, T 455
- Silica
 - Acid-insoluble ash in pulp, T 244
 - Analysis of limestone, T 618
 - Analysis of sodium silicate, T 632
 - Analysis of talc, T 665
 - In pulp (wet ash method), T 245
- Silicate pigments
 - see* Pigments
- Silicates
 - Acid-insoluble ash in pulp, T 244
 - In pulp (wet ash method), T 245
- Silicon dioxide
 - see* Silica
- Silver nitrate
 - Preparation of indicators and standard solutions, T 610
- Silver tarnish tests
 - Silver tarnishing by paper and paperboard, T 444
- Silvering method
 - see* Specific surface
- Sisal
 - Species identification of nonwood plant fibers, T 259
- Size
 - Grease resistance for paper and paperboard, T 559
- Size emulsion
 - see* Rosin size
- Sized paper
 - Size test for paper by ink resistance (Hercules-type method), T 530
 - Surface wettability of paper (angle of contact method), T 458
 - Water absorptiveness of (Cobb test), T 441
 - Water resistance of, T 433
- Sizing
 - Degree of in paper by ink resistance, T 530
 - Water absorption of corrugating medium, T 831
 - Water absorptiveness of sized paper, paperboard, and corrugated fiberboard (Cobb test), T 441
 - Water immersion number of paperboard, T 491
 - Water resistance of size paper and paperboard (dry indicator method), T 433
- Slide angle
 - Coefficient of static friction (slide angle) of packaging and packaging materials (including shipping sack papers, corrugated and solid fiberboard) (inclined plane method), T 815
- Slide resistance
 - see* Friction, Slide angle
- Slowness of pulp/stock
 - see* Freeness
- Slurry
 - Accelerated test for viscosity stability of clay slurries, T 697
 - Viscosity of coating clay slurry, T 648
- Slush pulps
 - Microbiological enumeration of process water and slush pulp, T 631
- Smelt
 - Analysis of pulping liquors by suppressed ion chromatography, T 699
- Smoothness
 - Paper (Bekk method), T 479
 - Paper and paperboard (Print-Surf method), T 555
 - Roughness of paper and paperboard, stylus method (Emveco-type), T 575
 - Roughness of paper and paperboard (Sheffield method), T 538
- Soda ash
 - see* Sodium carbonate
- Soda pulps
 - see* Pulps
- Sodium
 - In pulp and paper by atomic absorption spectroscopy, T 266
- Sodium bicarbonate
 - Analysis of salt cake, T 619
- Sodium chloride
 - Analysis of salt cake, T 619
- Sodium hydrosulfite
 - Analysis of sodium hydrosulfite, T 622
- Sodium hydroxide
 - Analysis of caustic soda, T 613
 - One percent sodium hydroxide solubility of wood and pulp, T 212
 - Preparation of indicators and standard solutions, T 610
 - Use of in determining alkali solubility of pulp, T 235
- Sodium oxide
 - Analysis of salt cake, T 619
 - Analysis of sodium silicate, T 632
- Sodium silicate
 - Analysis of, T 632
- Sodium sulfate
 - Analysis of salt cake, T 619
- Sodium thiosulfate
 - Preparation of indicators and standard solutions, T 610
- Softwoods
 - Fiber analysis of paper and paperboard, T 401
 - Wood/fiber identification method for, T 263
- Solid fiberboard
 - see* Fiberboard
- Solids content
 - Analysis of rosin size, T 628
 - Black liquor, T 650
 - Measuring, sampling, and analyzing white waters, T 656
 - Suspended solids in kraft green and black liquor, T 692
- Solubility
 - Alkali solubility of pulp at 25°C, T 235
 - Analysis of limestone, T 618
 - Analysis of rosin, T 621

- One percent sodium hydroxide solubility of wood and pulp, T 212
- Soluble material
 - see* Solubility
- Solutions
 - Analysis of formaldehyde in aqueous solutions and of free formaldehyde in resins, T 600
- Solvent extractives
 - see* Solvents
- Solvents
 - Acetone extractives of wood and pulp, T 280
 - Extractives of wood and pulp, T 204
- Soxhlet apparatus
 - see* Extraction, Rosin
- Species identification
 - Species identification of nonwood plant fibers, T 259
- Specific gravity
 - see* Density
- Specific handling stiffness
 - see* Stiffness
- Specific surface
 - Of pulp, T 226
- Specific volume
 - see* Bulk
- Spectrometers
 - Color of paper and paperboard (45/0, C/2), T 524
 - Color of paper and paperboard (d/0, C/2), T 527
- Spectrophotometry
 - see* Spectroscopy
- Spectroscopy
 - Determination of sodium, calcium, copper, iron, and manganese in pulp and paper by atomic absorption spectroscopy, T 266
 - Identification and determination of melamine resin in paper, T 493
- Specular gloss
 - see* Gloss
- Splitting
 - see* Ply separation
- Spore-cloud method
 - see* Fungi
- Spore-mycelial method
 - see* Fungi
- Stability
 - see also* Permanence
 - Accelerated temperature aging of printing and writing paper by dry oven exposure apparatus, T 573
 - Accelerated test for viscosity stability of clay slurries, T 697
 - Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572
 - Effect of dry heat on properties of paper, T 453
- Staining
 - Envelope seal, seam, and window patch testing, T 516
 - Fiber analysis of paper and paperboard, T 401
- Standard practice
 - Acceptance procedures for calibration laboratories, T 1211
- Standard solutions
 - Preparation of, T 610
- Standards
 - Acceptance procedures for calibration laboratories, T 1211
 - Calibration of reflectance standards for hemispherical geometry, T 1218
- Starch
 - Consumption in corrugated board (enzymatic/colorimetric method), T 532
 - Consumption in corrugated board (enzymatic/gravimetric method), T 531
 - Starch in paper, T 419
 - Viscosity of, T 676
 - Water solubility of wood and pulp, T 207
- Starch indicator
 - see* Indicators, preparation of
- Static creasing
 - see* Creasing
- Static friction
 - see* Friction
- Static tests
 - Static creasing of paper for water vapor transmission tests, T 465
- Sterols
 - Acetone extractives of wood and pulp, T 280
- Stickies
 - Laboratory screening of pulp (MasterScreen-type instrument), T 274
 - Macro stickies content in pulp: the "pick-up" method, T 277
 - Pulp screening (Valley-type screening device), T 278
 - Screening of pulp (Somerville-type equipment), T 275
- Stiffness
 - Bending resistance of paper and paperboard (Lorentzen & Wettre type tester, T 556)
 - Bending resistance (stiffness) of paper (Taber-type tester in 0 to 10 Taber stiffness unit configuration), T 566
 - Bending resistance (stiffness) of paper and paperboard (Taber-type tester in basic configuration), T 489
 - Corrugated board stiffness, four point method, T 836
 - Flexural stiffness of corrugated board, T 820
 - Tensile properties of paper and paperboard (using constant rate of elongation apparatus), T 494
 - Tensile properties of towel and tissue products (using constant rate of elongation apparatus), T 576
 - Testing of fiber glass mats: use of modified TAPPI procedures for sampling and lot acceptance, stiffness, tear resistance, and thickness, T 1006
- Stokes' Law
 - see* Particle size distribution
- Storage
 - Storage of paper samples for optical measurements

- and color matching, T 1219
- Straw
 - Fiber analysis of paper and paperboard, T 401
 - Species identification of nonwood plant fibers, T 259
- Strength tests
 - see* Bond strength, Burst strength, Compression tests, Tear strength, Tensile strength, Impact tests
 - Accelerated pollutant aging of printing and writing paper by pollution chamber exposure apparatus, T 572
 - Accelerated temperature aging of printing and writing paper by dry oven exposure apparatus, T 573
- Stretch
 - Tensile properties of paper and paperboard (using constant rate of elongation apparatus), T 494
 - Tensile properties of towel and tissue products (using constant rate of elongation apparatus), T 576
 - Tensile strength and elongation at break for fiber glass mats, T 1009
- Strip method
 - see* Baled pulp
- Stripping strength
 - see* Peel strength
- Structural fiber insulating board
 - see* Insulating board
- Sub-visible contraries
 - Physical area of sub-visible contraries in pulp, paper and paperboard by image analysis, T 568
- Submersion
 - Water immersion number of paperboard, T 491
- Substance
 - see* Basis weight
- Sugar cane
 - Species identification of nonwood plant fibers, T 259
- Sugars
 - Water solubility of wood and pulp, T 207
- Sulfate liquors
 - see* Kraft liquors
- Sulfate soap
 - see* Tall oil soap
- Sulfated ash
 - see* Ash content
- Sulfates
 - Analysis of caustic soda, T 613
 - Determination of in pulping liquor, T 699
 - Water-soluble sulfates in pulp and paper, T 255
- Sulfide
 - Determination of in pulping liquor, T 699
 - Reducible sulfur in paper and paperboard, T 406
- Sulfide-free reducing compounds
 - Analysis of soda and sulfate white and green liquors, T 624
- Sulfite
 - Determination of in pulping liquor, T 699
 - Reducible sulfur in paper and paperboard, T 406
- Sulfite liquors
 - Sulfur dioxide in sulfite cooking liquor, T 604
- Sulfite pulps
 - Sulfur dioxide in sulfite cooking liquor, T 604
- Sulfur
 - Reducible sulfur in paper and paperboard, T 406
- Sulfur dioxide
 - Analysis of sulfuric acid, T 602
 - Sulfur dioxide in sulfite cooking liquor, T 604
- Sulfur trioxide
 - Analysis of salt cake, T 619
- Sulfuric acid
 - Analysis of, T 602
 - Preparation of indicators and standard solutions, T 610
- Sunn hemp
 - Species identification of nonwood plant fibers, T 259
- Surface area
 - see* Specific surface
- Surface energy
 - Determination of wetting tension of polyethylene and polypropylene films and coatings (modified visking analytical technique, T 698
- Surface pH
 - see* pH
- Surface roughness
 - Roughness of paper and paperboard (Sheffield method), T 538
- Surface strength
 - Abrasion loss of paper and paperboard (Taber-type method), T 476
 - Of paper (wax pick test), T 459
- Surface tension
 - see also* Wetting tension
 - Determination of wetting tension of polyethylene and polypropylene films and coatings (modified visking analytical technique), T 698
 - Determination of wetting tension of polymeric films and coated surfaces via the Mayer rod technique, T 552
- Surface wettability
 - see* Wettability
- Surfaces
 - Dirt in paper and paperboard, T 437
- Suspect test determinations
 - see* Test determinations
- Suspended solids
 - Determination of in kraft green and white liquor, T 692
 - Measuring, sampling, and analyzing white waters, T 656
- Suspensions (pulp)
 - see* Dispersions
- Sutherland test
 - see* Ink rub resistance

T

- Taber stiffness
 - Bending resistance (stiffness) of paper and

- paperboard (Taber-type tester in basic configuration), T 489
- Talc
 - Analysis of, T 665
- Tall oil rosin
 - see* Rosin
- Tear factor
 - see* Tear strength
- Tear strength
 - Internal tearing resistance of paper (Elmendorf-type method), T 414
 - Testing of fiber glass mats: use of modified TAPPI procedures for sampling and lot acceptance, stiffness, tear resistance, and thickness, T 1006
- Tearing resistance
 - See also* Tear strength
 - Specimen preparation for cross directional internal tearing resistance for paper, paperboard and related materials, T 496
- Temperature control
 - Standard conditioning and testing atmospheres for paper, board, pulp handsheets, and related products, T 402
 - Test conditions for fiber glass mat test methods, T 1008
- Tensile breaking strength
 - see also* Tensile strength
- Tensile energy absorption (TEA)
 - Internal bond strength (Scott type), T 569
 - Tensile properties of paper and paperboard (using constant rate of elongation apparatus), T 494
 - Tensile properties of towel and tissue products (using constant rate of elongation apparatus), T 576
- Tensile index
 - see* Tensile strength
- Tensile properties
 - Internal tearing resistance of paper (Elmendorf-type method), T 414
- Tensile strength
 - Effective fiber length index by zero/short-span tensile testing, T 279
 - Elongation at break for fiber glass mats, T 1009
 - Internal bond strength of paperboard (z-direction tensile), T 541
 - Tensile breaking strength of water-saturated paper and paperboard (“wet tensile strength”), T 456
 - Tensile properties of paper and paperboard (using constant rate of elongation apparatus), T 494
 - Tensile properties of towel and tissue products (using constant rate of elongation apparatus), T 576
- Tensile stress
 - Internal bond strength (Scott type), T 569
- Tensile tests
 - Effective fiber length index by zero/short-span tensile testing, T 279
 - Tensile properties of paper and paperboard (using constant rate of elongation apparatus), T 494
 - Tensile properties of towel and tissue products (using constant rate of elongation apparatus), T 576
- Terminology
 - Optical measurement terminology (related to appearance evaluation of paper), T 1500
- Test boards
 - Forming insulating boards for physical testing, T 1001
- Test conditions
 - Standard conditioning and testing atmospheres for paper, board, pulp handsheets, and related products, T 402
- Test facilities
 - Standard conditioning and testing atmospheres for paper, board, pulp handsheets, and related products, T 402
- Test sheets
 - see* Handsheets
- Test methods
 - Dealing with suspect (outlying) test determinations, T 1205
- Testing
 - Compression wood identification in pulping, T 267
 - Dealing with suspect (outlying) test determinations, T 1205
 - Interlaboratory evaluation of test methods used with paper and paper products, T 1200
 - Test conditions for fiber glass mat test methods, T 1008
- Testing atmospheres
 - see* Atmospheres, Test conditions
- Thickness
 - Book bulk and bulking number of paper, T 500
 - Envelope seal, seam, and window patch testing, T 516
 - Paper and paperboard (soft platen method), T 551
 - Paper, paperboard, and combined board, T 411
 - Testing of fiber glass mats: use of modified TAPPI procedures for sampling and lot acceptance, stiffness, tear resistance, and thickness, T 1006
- Thiosulfate
 - Determination of in pulping liquor, T 699
 - Reducible sulfur in paper and paperboard, T 406
- Thymol blue
 - see* Indicators, preparation of
- Tinting
 - CIE whiteness and tint of paper and paperboard (45/0 geometry, C/2 illuminant/observer), T 562
 - CIE whiteness and tint of paper and paperboard (d/0 geometry, C/2 illuminant/observer), T 560
- Tissue papers
 - see also* Absorptivity, Paper products
 - Tensile breaking strength of water-saturated paper and paperboard (“wet tensile strength”), T 456
 - Tensile properties of towel and tissue products (using constant rate of elongation apparatus), T 576
 - Water absorbency of bibulous papers, T 432
- Tissues
 - see* Absorptivity, Paper products, Tissue papers
- Titanium dioxide
 - see also* Fillers, Pigments
 - Determination of, T 627

Titrateable alkali
Analysis of bleaching powder, calcium hypochlorite bleach liquor, and bleach sludge, T 611

Toluene
Analysis of rosin, T 621

Total alkali
Caustic soda, T 613

Total alkalinity
see Total alkali

Total reducing compounds
Analysis of soda and sulfate white and green liquors, T 624

Total solids
see Solids content

Total suspended solids
see Suspended solids

Toweling
see Absorptivity

Toweling papers
Tensile breaking strength of water-saturated paper and paperboard (“wet tensile strength”), T 456
Water absorbency of bibulous papers, T 432

Transmission rate
see Water vapor transmission rate

Treated paper and paperboard
see Flameproof papers, Fungi

Tristimulus values
Color of paper and paperboard, T 527
Color of paper and paperboard (45/0, C/2), T 524

Tub-sized starch
see Starch

Turpentine tests
see Grease resistance, Oil penetration tests

U

Ultraviolet radiation
Light sources for evaluating papers including those containing fluorescent whitening agents, T 1212

Ultraviolet spectroscopy
Hexeneuronic acid content of chemical pulp, T 282

Ultraviolet-containing daylight illuminant
see Illumination

Uniformity
Fiber glass mat uniformity (visual defects), T 1015

Units of measurement
Measurement and conversion factors, T 1210

Unsaponifiable materials
see Saponification number

Urea-formaldehyde resins
see Polyureas

Useful fiber
see Fiber

V

Valley beater
Laboratory beating of pulp (Valley beater method), T 200

Vapor barriers
Dynamic measurement of water vapor transfer through sheet materials, T 523

Variation
Cross-machine grammage profile measurement, T 545
Machine direction grammage variation measurement (gravimetric method), T 546

Vegetable parchment
see Parchment papers

Viewing device
see Compression wood

Viscosity
Accelerated test for viscosity stability of clay slurries, T 697
Coating clay slurry, T 648
Cupriethylenediamine disperse viscosity of pulp (falling ball method), T 254
Pulp (capillary viscometer method), T 230
Sodium silicate, T 632
Starch and starch products, T 676

Viscosity stability
see Viscosity

Viscosity-velocity product
see Printing

Vision
Fiber glass mat uniformity (visual defects), T 1015
Visual grading and color matching of paper, T 515

Visual defects
Fiber glass mat uniformity, T 1015

Visual efficiency
Indices for whiteness, yellowness, brightness, and luminous reflectance factor, T 1216

Visual grading
Visual grading and color matching of paper, T 515

Voids
Turpentine test for voids in glassine and greaseproof papers, T 454

Volatile suspended solids
see Suspended solids

Volatiles content
Analysis of rosin size, T 628

Volatility
Acetone extractives of wood and pulp, T 280
Solvent extractives in wood and pulp, T 204
Analysis of sulfuric acid, T 602

Volume
Basic density and moisture content of pulpwood, T 258
Measuring, sampling, and analyzing white waters, T 656
Weight-volume measurement of pulpwood, T 268

Volumetric reagent solutions
see Standard solutions

Volumetry
Zinc and cadmium in paper, T 438

W

- Washer
 - Open drum washer mat sampling technique, T 281
- Water absorbency/absorption/absorptivity
 - see* Absorptivity
- Water absorption
 - Water absorption of corrugating medium: float curl method, T 832
 - Water absorption of corrugating medium: water drop absorption test, T 835
 - Water absorption of corrugating medium: water drop penetration test, T 831
 - Water immersion number of paperboard, T 491
- Water content
 - see* Moisture content
- Water drop tests
 - Water absorption of corrugating medium (absorption test), T 835
 - Water absorption of corrugating medium (penetration test), T 831
- Water immersion
 - see* Submersion
- Water immersion tests
 - see* Water resistance
- Water resistance
 - Sized paper and paperboard, T 433
 - Water immersion number of paperboard, T 491
- Water saturation
 - see* Saturation
- Water solubility
 - see* Water solubles
- Water solubles
 - Chloride in pulp and paper, T 256
 - In pulp and paper, T 255
 - Wood and pulp, T 207
- Water vapor permeability
 - Packaging papers, T 523
 - Static creasing of paper for water vapor transmission tests, T 465
- Water vapor transfer rate
 - see* Water vapor transmission rate
- Water vapor transmission rate (WVTR)
 - Dynamic measurement of through sheet materials, T 523
 - Sheet materials at normal temperature, T 448
 - Water vapor transmission rate of paper and paperboard at high temperature and humidity, T464
- Water-soluble acidity
 - see* Acidity
- Water-soluble alkalinity
 - see* Alkalinity
- Wax
 - Acetone extractives of wood and pulp, T 280
 - Determination in wood and pulp, T 204
 - In pulp, paper and paperboard, T 574
- Wax pick tests
 - Surface strength of paper, T 459
- Wax strength number
 - see* Wax pick tests
- Wedge method
 - see* Baled pulp
- Weight
 - Basic density and moisture content of pulpwood, T 258
 - Weight/volume measurement of pulpwood, T 268
- Weight fraction fines
 - Fines fraction by weight of paper stock by wet screening, T 261
- Weight percent fines
 - Fines fraction by weight of paper stock by wet screening, T 261
- Weight/area measurement
 - see* Grammage
- Weight/volume measurement
 - see* Volume, Weight
- Weighted average fiber length
 - see* Fiber length
- Wet abrasion test
 - see* Abrasion
- Wet ash method
 - Silica and silicates in pulp, T 245
- Wet curl
 - see* Curl
- Wet density
 - see* Density
- Wet ply separation
 - see* Ply separation
- Wet screening
 - see also* Screening
 - Fines fraction by weight of paper stock by wet screening, T 261
- Wet strength
 - Effective fiber length index by zero/short-span tensile testing, T 279
 - Tensile breaking strength of water-saturated paper and paperboard (“wet tensile strength”), T 456
- Wet tensile breaking strength
 - see* Tensile strength
- Wettability
 - Surface wettability of paper (angle of contact method), T 458
 - Surface wettability and absorbency of sheeted materials using an automated contact angle tester, T 558
- Wetting
 - Surface wettability and absorbency of sheeted materials using an automated contact angle tester, T 558
- Wetting resistance
 - see* Wettability
- Wetting tension
 - Polyethylene and polypropylene films, T 698
- Wheat straw
 - Species identification of nonwood plant fibers, T 259
- White liquors
 - Analysis of by suppressed ion chromatography, T 699
 - Suspended solids in, T 692

White waters
 Determination of titanium dioxide, T 627
 Measuring, sampling, and analyzing, T 656

Whiteness
 Brightness of clay and other mineral pigments (d/0 diffuse), T 534
 CIE whiteness and tint of paper and paperboard (45/0 geometry, C/2 illuminant/observer), T 562
 CIE whiteness and tint of paper and paperboard (d/0 geometry, C/2 illuminant/observer), T 560
 Indices for whiteness, yellowness, brightness, and luminous reflectance factor, T 1216

Wilson's stain
 see Fiber analysis, Staining

Window envelopes
 Seal, seam, and window patch testing in, T 516

Wire side
 Identification of in paper, T 455

Wood
 Acetone extractives of wood and pulp, T 280
 Acid-insoluble ash in, T 244
 Acid-soluble lignin in, T 222
 Alcohol-benzene and dichloromethane solubles in, T 204
 Ash determination, T 211, T 413
 Basic density and moisture content of, T 258
 Carbohydrate composition of extractive-free wood and wood pulp by gas-liquid chromatography, T 249
 Compression wood identification in pulpwood, T 267
 Identification of from conifers, T 263
 Natural dirt in wood chips, T 265
 One percent sodium hydroxide solubility of, T 212
 Pentosans in wood and pulp, T 223
 Preparation of for chemical analysis, T 264
 Sampling and preparing for analysis, T 257
 Water solubility of, T 207

Wood chips
 see Chips

Wood extractives
 see Extractives

Wood fibers
 see Fibers

Wood flour
 Specific external surface of pulp, T 226

Wood pulp
 see Pulp

Wood resins
 Solvent extractives in wood and pulp, T 204

Wound rolls
 Paperboard roll hardness, T 834

Writing paper
 Coefficients of static and kinetic friction of uncoated writing and printing paper by use of the horizontal plane method, T 549
 Surface wettability of paper (angle of contact method), T 458

Writing quality
 see Feathering

WVTR
 see Water vapor transmission rate

X

X-ray diffraction
 Analysis of talc, T 665

Xylan
 Carbohydrate composition of extractive-free wood and wood pulp chromatography, T 249

Y

Y reflectance
 Equivalent Black Area (EBA) and count of visible dirt in pulp, paper and paperboard by image analysis, T 563

Yellowness coefficient
 Indices for whiteness, yellowness, brightness, and luminous reflectance factor, T 1216

Young's modulus
 see Elastic strength

Z

Z-direction
 Internal bond strength (Scott type), T 569

Z-directional tensile strength
 see Tensile strength

Zero-span breaking strength
 see Tensile strength

Zero-span tensile strength
 see also Tensile strength
 Effective fiber length index by zero/short-span tensile testing, T 279
 Zero-span breaking strength of pulp (dry zero-span tensile), T 231

Zinc
 Zinc and cadmium in paper, T 438

Zinc oxide
 see Pigments

Zinc sulfide
 see Pigments