A Glossary of AATCC Standard Terminology

AATCC Blue Wool Lightfastness Standard, n.—one of a group of dyed wool fabrics distributed by AATCC for use in determining the amount of light exposure of specimens during lightfastness testing. *Source:* TM (Test Method) 16, 111, 192.

AATCC fading unit (AFU), n.—a specific amount of exposure made under the conditions specified in various test methods where one AFU is one-twentieth (1/20) of the light-on exposure required to produce a color change equal to Step 4 on the Gray Scale for Color Change or 1.7 ± 0.3 CIELAB units of color difference on AATCC Blue Wool Lightfastness Standard L4. *Source:* TM 16.

abrasion, n.—the wearing away of any part of a material by rubbing against another surface. *Source:* TM 93, 119, 120.

absorbance, n.—the logarithm to the base 10 of the reciprocal of transmittance.

NOTE: Absorbance is proportional to the mass of absorbing material in the path length of a spectrophotometer cell (syn: *absorbance value*). *Source:* TM 182.

absorbency, n.—the propensity of a material to take in and retain a liquid, usually water, in the pores and interstices of the material. *Source:* TM 70, 79.

absorption, n.—a process in which one material (the absorbent) takes in or incorporates another material (the absorbate) within itself; such as the absorption of moisture by fibers. *Source:* Committee RA93.

accelerated ageing, n.—*in textile processing and testing*, use of controlled environmental conditions to promote rapid physical and/or chemical change in a textile material. *Source:* TM 26.

acid dye, n.—an anionic dye having substantivity for fibers which contain cationic groups usually in acidic or neutral aqueous dyebaths. *Source:* TM 159.

activated oxygen bleach, n.—a bleaching system comprising an oxygen bleach and a bleach activator. *Source:* TM 190.

activity, n.—*of an antibacterial agent*, a measure of effectiveness of the agent. *Source:* TM 100, 147, 174.

activity, n.—*of an anti-dust mite agent*, a measure of the effectiveness of the agent. *Source:* TM 194.

add-on, n.—*in textile processing*, the amount of any material, chemical finish, coating, sizing, etc. that is applied to a textile. (see also *wet pick-up*.)

NOTE: Add-on is usually determined as a percentage of either the dry or conditioned weight of the textile prior to processing. *Source:* Committee RA93.

ageing, accelerated, n.—see *accelerated ageing*.

anionic dye, n.—a dye that dissociates in aqueous solution to give a negatively charged colored ion. *Source:* Committee RA87.

antibacterial agent, n.—any chemical material which kills bacteria (bactericide) or interferes with the multiplication, growth or activity of bacteria (bacteriostat). *Source:* TM 100, 147, 174.

antifungal agent, n.—any chemical material which kills or inhibits the growth of fungi. *Source:* TM 174.

anti-house dust mite agent, n.—any chemical which kills (acaricide) or repels house dust mites. *Source:* TM 194.

antimicrobial agent, n.—*in textiles*, any chemical material which kills or inhibits the growth of microorganisms. *Source:* TM 174.

appearance of creases, n.—see *crease retention*.

appearance of textile end products, n.—the overall visual impression of a textile end product quantified by comparison of individual components with appropriate reference standards. *Source:* TM 143.

aqueous repellency, n.—*in textiles*, the characteristic of a fiber, yarn or fabric whereby it resists wetting by aqueous liquids. *Source:* TM 193.

area-of-view, n.—*of color measuring instrument*, the dimensions of the surface area that a color measuring instrument is capable of covering in a single color measurement. *Source:* Evaluation Procedure 6.

azoic composition, n.—a physical mixture of an azoic coupling component and a stabilized azoic diazo component which produces, *in situ*, an insoluble azo colorant in both cellulosic and synthetic substrates. *Source:* Committee RA87.

azoic diazo component, n.—a stabilized diazonium salt of a primary acrylamine or derivative thereof which is capable of reacting with an azoic coupling component. *Source:* Committee RA87.

azoic dye, n.—an insoluble azo compound developed, *in situ*, on a substrate by chemically reacting an azoic diazo component (diazotized amine) with an azoic coupling component. *Source:* Committee RA87.

Bacterial Amylase Unit (BAU), n.—a measure of starch degradation as shown by the quantity of an enzyme that will dextrinize one milligram of starch per minute under the specified experimental conditions. *Source:* TM 103.

bacterial resistance, n.—*in textiles*, resistance to the development of visible bacterial growth and accompanying odors, resulting from bacterial degradation of fibers or soil on them, as distinguished from musty fungal odors. *Source:* TM 174.

ballast, n.—*in procedures for processing or testing of textiles*, material that is used to bring the total weight or volume of the textiles to an amount specified in the procedure. *Source:* TM 88B, 88C, 124, 143.

barré, n.—an unintentional, repetitive visual pattern of continuous bars and stripes usually parallel to the filling of woven fabric or the courses of circular knit fabric.

NOTE: The term barré is sometimes used as a synonym for "filling bands." Barré in warp knit fabrics is most often referred to as "warp streaks." *Source:* TM 178.

basic dye, n.—a dye that dissociates in an aqueous medium to give a positively charged colored ion (cation) with affinity for fibers containing acidic groups. *Source:* TM 141.

black panel thermometer, n.—a temperature measuring device, the sensing unit of which is coated with black designed to absorb most of the radiant energy encountered in lightfastness testing. *Source:* TM 16, 111, 181, 192.

black standard thermometer, n.—a temperature measuring device, the sensing unit of which is coated with a black material designed to absorb most of the radiant energy encountered in lightfastness testing and is thermally insulated by means of a plastic plate. *Source:* TM 16.

bleach, n.—*in home laundering*, a product that will clean, whiten, brighten and aid in the removal of soils and stains from textile materials by oxidation that is inclusive of chlorine and non-chlorine products. *Source:* TM 172, 188.

bleach, n.—*in textiles*, an oxidizing or reducing agent used to partly or completely destroy natural or extraneous coloring matter in a textile, thereby leaving the textile lighter or whiter. *Source:* Committee RA93.

bleach activator, n.—a bleach agent precursor, which converts a less potent bleaching species into a more powerful one. *Source:* TM 190.

bleaching, n.—elimination of unwanted coloring matter from a textile substrate by oxidative or reductive chemical treatment. *Source:* TM 81, 102.

blue wool lightfastness standard, n.— one of a group of dyed wool fabrics

which are sensitive to the amount of light, heat, and moisture to which they are exposed.

NOTE: Because of the unstable nature of these materials they are also sensitive to the heat and moisture conditions which exist before exposure testing, after exposure testing and prior to measurement. *Source:* TM 181.

bond strength, n.—*in bonded and laminated fabrics*, the tensile force expressed in g/cm (oz/in.) of width required to separate the component layers under specified conditions. *Source:* TM 136.

bonded fabric, n.—a layered fabric structure wherein a face or shell fabric is joined to a backing fabric with an adhesive that does not significantly add to the thickness of the combined fabrics.

NOTE 1: In this context, a thin layer of foam is considered an adhesive when the cell structure is completely collapsed by a flame.

NOTE 2: Normally, but not always, the backing fabric may be tricot or nonwoven. *Source:* TM 136.

breaking strength, n.—the maximum force applied to a specimen in a tensile test carried to rupture. *Source:* TM 111, 169, 186, 192.

broad bandpass radiometer, n.—a relative term applied to radiometers that have a bandpass width of more than 20 nm at 50% of maximum transmittance and can be used to measure irradiance at wavelengths such as 300-400 nm or 300-800 nm. *Source:* TM 16, 111.

burnt gas fumes, n.—atmospheric oxides of nitrogen as derived from the combustion of illuminating or heating gas. *Source:* TM 23.

bursting strength, n.—the force or pressure required to rupture a textile by distending it with a force, applied at right angles to the plane of the fabric, under specified conditions. *Source:* TM 111, 169, 186, 192.

carbonizing, n.—a chemical process for eliminating cellulosic matter from a mixture with animal fibers by degrading the cellulosic material to an easily friable condition. *Source:* Committee RA93.

care instructions, n.—*in textiles*, a series of directions describing which care practices should refurbish a product without adverse effects and warning of those care practices expected to have a harmful effect. *Source:* TM 172, 188.

carpet, n.—all textile floor coverings not designated as rugs. *Source:* TM 121, 122, 123, 138, 165, 171.

carpet pile brush, n.—a hand operated brush having long, semi-rigid bristles intended specifically for erecting the pile of small areas of carpet. (see also *pile lifter.*) *Source:* TM 171.

cationic dye, n.—a dye that dissociates in an acidified, aqueous solution to give a positively charged colored ion. *Source:* Committee RA87.

cellulase enzyme, n.—an enzyme that attacks cellulose. *Source:* TM 191.

center wavelength, n.—the specified wavelength for a bandpass filter; the wavelength midway between the half power points, for example, 340 nm ± 2 nm. *Source:* TM 111.

chelating agent, n.—*in textile chemistry*, a chemical capable of deactivating metal ions by formation of a water soluble complex. SYN: *sequestering agent*. *Source:* TM 149, 161, 168.

chemical finish, n.—chemical material other than colorants and residual processing chemicals added to textiles to impart desired functional or aesthetic properties to the textile product. *Source:* TM 94.

chemical finishing, n.—the process of applying chemicals, other than colorants, to textiles to impart desired functional and/or aesthetic characteristics which may or may not be durable in normal use. *Source:* Committee RA93.

chroma, n.—the proportion of spectrally pure color that expresses the degree of departure from the gray of the same lightness; i.e., brighter or duller. *Source:* Evaluation Procedure 9.

chrome dye, n.—a mordant dye capable of forming a chelate complex with a chromium ion. *Source:* Committee RA87.

CIE 1976 L*a*b* equation, n.—a commonly used equation which transforms CIE tristimulus values into a three-dimensional opponent color space. Generally abbreviated as CIELAB. *Source:* TM 173.

CIE chromaticity coordinates, n.—the ratio of each of the tristimulus values of a psychophysical color to the sum of the tristimulus values (ASTM E 284). *Source:* TM 110.

CIE tristimulus values, n.—amounts of three non-real reference color stimuli required to give a color match with the color stimulus considered, and defined by the CIE for the CIE 1931 standard observer and the CIE 1964 supplementary standard observer and for a particular illumination condition. *Source:* TM 110.

clean-fiber content, n.—the amount of fiber after removal of nonfibrous content. *Source:* TM 20A.

cleaning head, n.—a vacuum head modified with spray nozzles for cleaning solution application. Some types include a powered brush unit to facilitate wetting and soil release. *Source:* TM 171.

cleanness, n.—*in carpet soiling tests*, the absence of change in appearance due to soil, specifically the degree to which the specimen approaches the original clean, unsoiled condition. (see also *soil affinity.*)

NOTE: Cleanness is independent of changes of physical structure which may be present because of exposure to traffic or action of cleaning procedures. *Source:* TM 121.

CMC unit, n.—*in color difference evaluation*, a measure of acceptability expressed in terms of the boundary for the CMC acceptability ellipsoid of $\Delta E_{cmc} = 1.0$.

NOTE: CMC is an acronym for the Colour Measurement Committee (of the Society of Dyers and Colourists) which was largely responsible for the development of the CMC (ℓ:c) equation. *Source:* TM 173.

coated fabrics, n.—a flexible material composed of a textile fabric and an adherent polymeric or other material applied to one or both surfaces. *Source:* Committee RA93.

color change, n.—*as used in colorfastness testing*, a change in color of any kind (whether a change in hue, chroma or lightness) *Source:* TM 16, 181, 192.

color change, n.—a change in color of any kind whether in lightness, hue or chroma or any combination of these, discernible by comparing the test specimen with a corresponding untested specimen. *Source:* Evaluation Procedures 1, 7, TM 111.

color strength, n.—a measure of the ability of a dye to impart color to other materials.

NOTE: Color strength is evaluated by light absorption in the visible region of the spectrum. *Source:* TM 182.

colorant, n.—a material which is applied to a substrate for the express purpose of changing the transmittance or reflectance of visible light.

NOTE: Dyes, pigments, tints and optical brighteners are examples of colorants; soils are not colorants. *Source:* TM 140, Evaluation Procedure 4.

colorant bleeding, n.—the loss of colorant from a textile substrate during contact with a liquid medium (such as water, drycleaning solvent or condensed vapors) with consequent coloring of the medium. *Source:* Committee RA93.

colorant staining, n.—the unintended pickup of colorant by a substrate due to (1) exposure to a colored or contaminated liquid medium, or (2) direct contact with dyed or pigmented material from which colorant transfers by sublimation or mechanical action (as in crocking). *Source:* TM 137, Evaluation Procedures 2, 3, 8.

colorfastness, n.—the resistance of a material to change in any of its color characteristics, to transfer of its colorant(s) to adjacent materials or both, as a result of the exposure of the material to any environment that might be encountered during the processing, testing, storage or use of the material. *Source:* TM 6, 8, 15, 16, 23, 61, 101, 104, 106, 107, 109, 116, 117, 125, 129, 131, 132, 133, 139, 157, 162, 163, 164, 165, 169, 172, 188, 190, Evaluation Procedures 1, 2, 8.

colorfastness to light, n.—the resis-

tance of a material to a change in its color characteristics as a result of exposure of the material to sunlight or an artificial light source. *Source:* TM 16.

colorist, n.—*in textile coloration*, a person experienced in developing color formulas, evaluating samples for color and producing colored samples to meet standards. *Source:* Committee RA93.

color measuring instrument, n.—any device, such as a colorimeter or spectrophotometer, used to measure the relative amounts of energy reflected from (or transmitted through) a specimen in the visible region of the energy spectrum (comprising the wavelengths from 360-780 nm, and including as a minimum the region from 400-700 nm). *Source:* Evaluation Procedure 6.

color measurement, n.—a numerical representation of the color of an object obtained by use of a color measuring instrument. A single measurement may represent an average of multiple readings of a specimen. *Source:* Evaluation Procedure 6.

commercial factor (cf), n.—*in color difference evaluation*, a tolerance (specified in terms of ΔE_{cmc} units) which adjusts all axes of the unit CMC volume equally to create a volume of acceptance for commercial use. *Source:* TM 173.

commercial laundering, n.—a process by which textile products or specimens may be washed, rinsed, bleached, dried and pressed in commercial laundering equipment, typically at higher temperatures, higher pHs and longer times than used for home laundering. *Source:* TM 96.

compatibility, n.—*in textile dyeing*, propensity of individual dye components in a combination shade to exhaust at similar rates resulting in a buildup of shade that is constant, or nearly constant, in hue throughout the dyeing process. *Source:* TM 141.

condensed dye, n.—a dye which, during or after application, reacts covalently with itself or other compounds, other than the substrate, to form a molecule of greatly increased size. *Source:* Committee RA87.

consolidation dimensional change, n.—the dimensional change that occurs when a fabric is gently agitated in water to overcome all the frictional constraints in it after it has been allowed to relax in water without agitation. *Source:* TM 99.

constituent elements of hand, n.—those components, qualities, attributes, dimensions, properties or impressions which make the sensation of touching one fabric different from that of touching another. *Source:* Evaluation Procedure 5.

copper chelation value (CuCV), n.—the milligrams of copper sulfate pentahydrate chelated by one gram of a chelating agent or product containing a chelating agent. *Source:* TM 185.

crease retention, n.—*in fabrics*, the visual impression of an inserted crease quantified by comparison with a set of reference standards. *Source:* TM 88C, 143.

crocking, n.—a transfer of colorant from the surface of a colored yarn or fabric to another surface or to an adjacent area of the same fabric principally by rubbing. *Source:* TM 8, 116, 165.

cross dyeing, n.—a process of dyeing textiles containing fibers having different dye affinities to achieve a multicolored effect. (see also *union dyeing*.) *Source:* Committee RA93.

ΔE_{cmc}, n.—*in color difference evaluation*, a single number defining the total color difference in CMC units of a trial from a standard. *Source:* TM 173.

depth, n.—departure of a colored object from white and frequently associated with either concentration or efficiency of a colorant. *Source:* Evaluation Procedure 4.

detergent, n.—a cleaning agent containing one or more surfactants as the active ingredient(s). *Source:* Committee RA93.

differential wear—see *frosting*.

dimensional change, n.—a generic term for variation in length or width of a garment or fabric specimen subjected to specified conditions. *Source:* TM 158.

dimensional change, n.—a generic term for changes in length or width of a fabric specimen subjected to specified conditions. The change is usually expressed as a percentage of the initial dimension of the specimen. *Source:* TM 96, 99, 135, 150, 160, 187.

dimensional restoration, n.—a return toward a former or original length or width dimension. *Source:* TM 160.

direct dye, n.—an anionic dye having substantivity for cellulosic fibers, normally applied from an aqueous dyebath containing an electrolyte. *Source:* Committee RA87.

disperse dye, n.—an essentially water insoluble dye having affinity, when properly dispersed, for polyester, polyamide and some other manufactured polymeric fibers. *Source:* TM 146, 154, 176.

dispersibility, n.—the degree to which particles can be broken down to some minimum size such that they will pass through the interstices of a standard filter paper. *Source:* TM 146.

dispersion, n.—*in textile wet processing*, a suspension of very fine particles in a liquid phase. *Source:* TM 176.

drycleaning, n.—the cleaning of fabrics with organic solvents such as petroleum solvent, perchloroethylene or fluorocarbon.

NOTE: The process also includes adding detergent and moisture to the solvent, up to 75% relative humidity, and hot tumble drying to 71C (160F). *Source:* TM 86, 132, 142, 158.

dummy load, n.—see *ballast*.

durable press, adj.—having the ability to retain substantially the initial shape, flat seams, pressed-in creases and unwrinkled appearance during use and after laundering or drycleaning. *Source:* TM 88B, 88C, 124, 143.

dust, n.—fine particles of solid material dispersed in a gas. *Source:* TM 184.

dusting, n.—the tendency of particles of sufficiently low mass to become airborne when a powder material is handled or agitated. *Source:* TM 170.

dye, n.—a colorant applied to or formed in a substrate, via the molecularly dispersed state, which exhibits some degree of permanence.

NOTE: Definitions for individual classes of dyes may be found under their particular class name; i.e., reactive dye. *Source:* TM 140, 163, 170.

dyeing, n.—*in textile manufacturing*, application of a dye to a substrate normally with the intention of obtaining an even distribution throughout the substrate. *Source:* Committee RA93.

electrical resistance, n.—the physical property of a material which is a measure of the ability of electrons to flow through it when a voltage is applied across two points on the material (resistance [in ohms] equal voltage [in volts] divided by current flow [in amperes]). *Source:* TM 84.

electrical resistivity, n.—material property of a substance whose numerical value is equal to the ratio of the voltage gradient to the current density. *Source:* TM 76.

electrostatic clinging, n.—adherence of one substance to another caused by an electrical charge on one or both surfaces. *Source:* TM 115.

electrostatic propensity, n.—the ability to produce and accumulate an electrostatic charge. *Source:* TM 134.

erythema, n.—abnormal redness of the skin (sunburn) due to capillary congestion (as in inflammation). *Source:* TM 183.

extractable matter, n.—nonfibrous material in or on a textile substrate, not including water, which is removable by a specified solvent or solvents as directed in a specified procedure. *Source:* TM 97.

face, n.—*in textiles*, the side of a fabric that is intended to be the outer visible surface in an end product. *Source:* TM 22.

felting dimensional change, n.—the irreversible dimensional change that occurs in a consolidated wool fabric when it is subjected to agitation in laundering. *Source:* TM 99.

fiber, n.—*in textiles*, a generic term for any one of the various types of matter that form the basic elements of a textile and which are generally characterized by flexibility, fineness and high ratio of length to thickness. *Source:* TM 20A.

fibrillation—see *frosting*.

finish, n.—*other than in preparation and coloration*, the result of application of mechanical energy, thermal energy, or chemical materials, separately, or together, to a textile product to impart durable or nondurable functional or aesthetic properties not otherwise obtainable. *Source:* Committee RA93.

finishing, n.—the process of applying mechanical energy, thermal energy or chemical materials to a textile product. (see also *finish*.) *Source:* Committee RA93.

flock, n.—*in textiles*, very short fibers intended for application to a substrate as a partial or complete surface covering or filler. *Source:* Committee RA93.

fluidity, n.—*of a cellulose solution*, a measure of the ease of flow or motion of a solution, and therefore an indicator of the molecular weight of the cellulose. *Source:* TM 82.

fluorescence, n.—a phenomenon in which radiant flux of certain wavelengths is absorbed and re-emitted nonthermally at other, usually longer, wavelengths. *Source:* Evaluation Procedure 6.

fluorescent brightener, n.—*see fluorescent whitening agent*. *Source:* Committee RA87.

fluorescent UV lamp, n.—a lamp in which radiation at 254 nm from a low-pressure mercury arc is transformed to longer wavelength UV by a phosphor. *Source:* TM 186.

fluorescent whitening agent (FWA), n.—colorant that absorbs near ultraviolet (UV) radiation and re-emits visible (violet-blue) radiation. This causes a yellowish material to which it has been applied to appear whiter (ASTM E 284). *Source:* TM 110.

fluorine content, n.—*in textile floor coverings*, the ratio of the weight of total elemental fluorine to the total weight of carpet fibers. *Source:* TM 189.

foam, n.—a dispersion of a gas in a liquid or solid. *Source:* TM 167.

foam tear, n.—*in laminated fabrics*, a condition wherein the foam portion of the fabric ruptures prior to the failure of the bond. *Source:* TM 136.

formaldehyde release, n.—that formaldehyde evolved from textiles under the accelerated storage conditions of this test including that which is free (unbound or occluded) from unreacted chemicals or from finish degradation as a result of this test. *Source:* TM 112.

frictional constraint, n.—*in textile wet processing*, the resistance to fiber movement imposed by fiber to fiber contacts within a fabric. *Source:* TM 99.

frosting, n.—*in textiles*, a change of fabric color caused by localized abrasive wear. (Syn: *differential wear*, *fibrillation*.)

NOTE: Frosting may be the result of differential wear, as in multicomponent blends in which the fibers do not match in shade, or of the abrasion of single-fiber constructions in which there is a variation in or incomplete penetration of dye. *Source:* TM 119, 120.

fulling, n.—a textile finishing process in which cloth is subjected to moisture, heat, friction and pressure. *Source:* Committee RA93.

garment, n.—a shaped article of textile fabric, or other flexible sheet material, intended to cover portions of the human body. *Source:* TM 150.

garment twist, n.—a rotation, usually lateral, between different panels of a garment resulting from the release of latent stresses during laundering of the woven or knitted fabric forming the garment. Twist may also be referred to as torque or spirality. *Source:* TM 179.

geometry, n.—*of a color measuring instrument*, one of the following terms (diffuse/0, 0/diffuse, 0/45 or 45/0) which describe the angle or manner in which a color measuring instrument:

(1) illuminates the specimen (diffuse, 0, 45)

(2) views the resulting reflected light (0 [0°-10°], diffuse, 45, 0).

Diffuse/0 and 0/diffuse geometry instruments contain a sphere used to diffuse the light illuminating [or reflected from] the specimen, while 0/45 and 45/0 geometry instruments generally use mirrors or fiber optics to direct the illumination [or viewing] at a 45 angle to the specimen.

NOTE: Instruments of different geometries may produce different colorimetric results on most textile materials. *Source:* Evaluation Procedure 6.

grade, n.—*in textile testing*, the symbol for any step of a multistep standard reference scale for a quality characteristic.

NOTE: The grade is assigned to test specimens exhibiting a degree of the quality comparable to that step of the standard. Numerical grades assigned to different specimens from a sample or by different observers are commonly averaged. *Source:* TM 118, 193, Evaluation Procedure 8.

Gray Scale, n.—a scale consisting of pairs of standard gray chips representing progressive differences in color or contrast corresponding to numerical colorfastness grades. *Source:* Evaluation Procedures 1, 2.

gray scale grade, n.—*for color change, (GSc)*, the numerical value that is assigned to the change in color of a test specimen as compared to an original or untreated specimen. *Source:* Evaluation Procedure 7.

growth, n.—a dimensional change resulting in an increase in the length or width of a specimen. *Source:* TM 96, 99, 135, 150, 160, 187.

half-power bandpass, n.—the interval between wavelengths at which transmittance is 50% of peak transmittance in a bandpass filter.

NOTE: The interval should not exceed 20 nm for a narrow bandpass filter. *Source:* TM 111.

hand, n.—the tactile sensations or impressions which arise when fabrics are touched, squeezed, rubbed or otherwise handled. *Source:* Evaluation Procedure 5.

hot pressing, n.—a process for smoothing and possibly shaping textile products by applying mechanical pressure with heat, either dry or in the presence of moisture. *Source:* TM 133.

hot water extraction, n.—a method of cleaning carpet by injecting a heated cleaning solution into the pile and quickly removing the solution and soil by vacuum. (see also *steam cleaning*.)

NOTE: Hot water extraction is often erroneously called "steam cleaning." Hot water is used at a temperature of 60 ± 3C (140 ± 5F). These temperatures are far below the temperature of steam of 100C (212F). *Source:* TM 171.

hue, n.—the attribute of color perception by means of which an object is judged to be red, orange, yellow, green, blue, violet or a combination of these. *Source:* Evaluation Procedures 4, 9.

hydrostatic pressure, n.—the force distributed over an area exerted by water. *Source:* TM 127.

infrared radiation, n.—radiant energy for which the wavelengths of the monochromatic components are greater than those for visible radiation and less than about 1 mm.

NOTE: The limits of the spectral range of infrared radiation are not well defined and may vary according to the user. Committee E-2.1.2 of the CIE distinguishes in the spectral range between 780 nm and 1 mm:

IR-A	780-1400 nm
IR-B	1.4-3.0 μm
IR-C	3 μm to 1 mm

Source: TM 16.

ingrain dye, n.—a colorant which is formed, *in situ*, in the substrate by the development and coupling of one or more intermediate compounds.

NOTE: The term was originally used for colorants obtained from oxidation bases and by azoic techniques, but is now reserved for other types of colorant formed *in situ*. *Source:* Committee RA87.

insect resistance, n.—*in textiles*, the capability to impede damage by insects. *Source:* TM 28.

irradiance, n.—radiant power per unit area as a function of wavelength expressed as watts per square meter, W/m^2. *Source:* TM 16, 111, 169, 186.

irradiation, n.—the time integral of irradiance expressed in joules per square

meter (J/m^2). *Source:* TM 111, 169, 181, 192.

"L" designation, n.—the sequence number given each AATCC Blue Wool Lightfastness Standard according to the number of AATCC Fading Units required to produce a color change equal to Step 4 on the AATCC Gray Scale for Color Change. *Source:* TM 16, 177.

laboratory sample, n.—a portion of material taken to represent the lot sample, or the original material, and used in the laboratory as a source of test specimens. *Source:* TM 111, 181, 192.

laminated fabric, n.—a layered fabric structure wherein a face or outer fabric is joined to a continuous sheet material, such as polyurethane foam, in such a way that the identity of the continuous sheet material is retained.

NOTE 1: Either the flame or adhesive method of laminating can be used.

NOTE 2: Normally, but not always, the sheet material is joined to a backing fabric.

NOTE 3: Normally, but not always, the backing fabric may be tricot or nonwoven, and the sheet material may be polyurethane. *Source:* TM 136.

langley, n.—a unit of total solar radiation equivalent to one gram calorie per square centimeter of irradiated surface.

NOTE: The internationally recommended units are: Joule (J) for quantity of radiant energy, watt (W) for quantity of radiant power, and meter squared (m^2) for area. The following factors are to be used: 1 langley = 1 cal/cm^2; 1 cal/cm^2 = 4.184 J/cm^2 or 41840 J/m^2. *Source:* TM 16.

laundering, n.—*of textile materials*, a process intended to remove soils and/or stains by treatment (washing) with an aqueous detergent solution and normally including subsequent rinsing, extracting and drying. *Source:* TM 61, 88B, 88C, 96, 99, 124, 135, 142, 143, 150, 160, 172, 179, 187, 188, 190.

laundering creases, n.—sharp folds or lines running in any direction in a washed or dried specimen.

NOTE: Laundering creases are an unintended result of restricted movement of specimens in the washer or the dryer. *Source:* TM 88B, 88C, 124, 143.

leuco dye, n.—a soluble reduced form of a dye from which the original dye may be regenerated by oxidation. (see also *vat dye* and *sulfur dye*.) *Source:* Committee RA87.

leuco sulfur dye, n.—a sulfur dye composition consisting of the leuco compound in the presence of a small excess of a reducing agent. *Source:* Committee RA87.

leveling, n.—*in textile dyeing and finishing*, the process leading to more uniform distribution of a chemical or dye within a substrate or between substrates. (compare *transfer*, *migration*.) *Source:* Committee RA93.

lightfastness, n.—the property of a material, usually an assigned number, depicting a ranked change in its color characteristics as a result of exposure of the material to sunlight or an artificial light source. *Source:* TM 16, 125.

lightness, n.—the amount of light reflected from a non-self-luminous textile material or the attribute of color perception by which such a surface is judged to reflect more or less light than another surface; i.e., darker or lighter. *Source:* Evaluation Procedure 9.

lot, n.—i*n bonded or laminated fabric*, a single run on the bonding or laminating machine in which the processing is carried out without stopping or changing processing conditions and consisting of either a single dye lot or a single greige goods lot. *Source:* TM 136.

mass coloration, n.—a method of coloring manufactured fibers by incorporation of the colorant in the spinning composition before extrusion into filaments. *Source:* Committee RA87.

mechanical finishing, n.—the process of applying mechanical energy to textiles to impart functional and/or aesthetic characteristics. *Source:* Committee RA93.

mercerization, n.—a process for irreversibly altering the physical characteristics and appearance of natural cellulosic fibers by swelling in strong alkali. *Source:* TM 43, 89.

metal-complex dye, n.—a dye having a coordinated metal atom in its molecule.

NOTE: Unless the term *metal-complex* dye is used in direct association with a particular application class of dye, e.g., *metal-complex disperse dye* or *metal-complex reactive dye*, its use is inexact and inadvisable. *Source:* Committee RA87.

metal sensitivity, n.—the propensity of a dye to produce an abnormal color on a textile material when in the presence of certain metal ions. *Source:* TM 161.

metallizable dye, n.—a dye capable of forming a dye-metal complex either in substance (see *metal-complex dye*) or on the substrate. *Source:* Committee RA87.

metamerism, n.—the attribute of two colored materials, which match under one illuminant and to one observer, but do not match when exposed to a different illuminant (having a different spectral power distribution) or when viewed by another observer. *Source:* Evaluation Procedure 9.

migration, n.—the nonuniform movement and distribution of dyes, pigments, finishes or other materials from one part of a material to another. *Source:* TM 157.

migration, n.—*in textile processing, testing, storage and use*, movement of a chemical, dye or pigment between fibers within a substrate or between substrates due to capillary forces. (see also *transfer*.) *Source:* TM 140.

mildew resistance, n.—*in textiles*, resistance to development of unsightly fungal growths and accompanying unpleasant, musty odors on textile materials exposed to conditions favoring such growths. *Source:* TM 30, 174.

moisture content, n.—that part of the total mass of a material that is absorbed or adsorbed water, compared to the total mass. *Source:* TM 20A.

mordant, n.—a substance, usually a metallic compound, applied to a substrate to form with a dye a complex which is retained by the substrate more firmly than the dye itself. *Source:* Committee RA87.

mordant dye, n.—a dye that is fixed with a mordant. *Source:* Committee RA87.

nap, n.—the raised fibrous surface of a fabric obtained by a mechanical brushing or other raising process. (compare *flock*, *pile*.) *Source:* Committee RA93.

narrow bandpass radiometer, n.—a relative term applied to radiometers that have a bandpass width of 20 nm or less at 50% of maximum transmittance and can be used to measure irradiance at wavelengths such as 340 or 420, ± 0.5 nm. *Source:* TM 16, 111.

non-chlorine bleach, n.—a bleach that does not release the hypochlorite ion in solution; i.e., sodium perborate, sodium percarbonate. *Source:* TM 172.

nonfibrous content, n.—products such as fiber finishes, yarn lubricants, slasher sizing, fabric softeners, starches, china-clay, soaps, waxes, oils and resins which are applied to fiber, yarn, fabric or apparel. *Source:* TM 20A.

oil repellency, n.—*in textiles*, the characteristic of a fiber, yarn or fabric whereby it resists wetting by oily liquids. *Source:* TM 118.

onium dye, n.—a cationic dye that is solubilized by a labile ammonium, sulfonium, phosphonium or oxonium substituent which splits off during fixation to leave an insoluble colorant in the fiber. *Source:* Committee RA87.

optical brightener, n.—see *fluorescent whitening agent*. *Source:* Committee RA87.

oxygen bleach, n.—a bleach agent which can liberate hydrogen peroxide by hydrolysis upon dissolving in water. *Source:* TM 190.

percent UV blocking, n.—100 minus the UV transmission. *Source:* TM 183.

perfect reflecting diffuser, n.—ideal reflecting surface that neither absorbs nor transmits light, but reflects diffusely, with the radiance of the reflecting surface being the same for all reflecting angles, regardless of the angular distribution of the incident light. (ASTM E 284).

NOTE: The perfect reflecting diffuser

is the basis of calibration of reflectance measuring instruments. The equations for whiteness and tint are formulated so that the CIE concept of the perfect reflecting diffuser has a whiteness index of 100.0 and a tint value of 0.0. *Source:* TM 110.

permanent press, n.—see *durable press*.

perspiration, n.—a saline fluid secreted by the sweat glands. *Source:* TM 15, 125.

pH, n.—the negative logarithm of the effective hydrogen ion concentration or hydrogen ion activity in gram equivalents per liter used in expressing both acidity and alkalinity on a scale whose values run from 0-14 with 7 representing neutrality, numbers less than 7 increasing acidity, and numbers greater than 7 increasing alkalinity. *Source:* TM 81.

photochromism, n.—a qualitative designation for a reversible change in color of any kind (whether a change in hue or chroma) which is immediately noticeable upon termination of light exposures when the exposed area of a specimen is compared to the unexposed area.

NOTE: The reversion of the color change or instability of the hue or chroma upon standing in the dark distinguishes photochromism from fading. *Source:* TM 16, 139.

pigment, n.—a colorant in particulate form which is insoluble in a substrate, but which can be dispersed in the substrate to modify its color. *Source:* TM 140, 176.

pilate, n.—see *pile lifting*. *Source:* TM 171.

pile, n.—*in textile fabrics*, yarn loops or tufts protruding from the plane of a fabric, incorporated into the fabric by any means, and which later might be cut, sheared or brushed. *Source:* Committee RA93.

pile lifter, n.—a vacuum cleaning device with motorized rotating brushes designed to erect and agitate carpet pile to facilitate soil removal. (see also *carpet pile brush*.) *Source:* TM 171.

pile lifting, n.—the act of erecting the pile tufts of a carpet with a *carpet pile brush*, *pile lifter* or *pile rake* to allow imbedded soil to be more easily removed and erecting the pile after cleaning to restore a uniform overall appearance. (also called *pilate*.) *Source:* TM 171.

pile rake, n.—a hand tool with smooth circular plastic tines used for pile lifting. *Source:* TM 171.

pleating, n.—the process of making one or more desirable folds in a cloth by doubling the material over on itself. *Source:* TM 131.

pool water, n.—water in a large container to which various chemicals are added to maintain purity and clarity, normally used for swimming. *Source:* TM 162.

premetallized acid dye, n.—an acid dye manufactured by reacting an equivalent of a suitable metal ion with one equivalent of a dye (1:1 premetallized acid dye), or with two equivalents of the same or different dyes (1:2 premetallized acid dyes), capable of chelating the metal. *Source:* TM 159.

preparation, n.—*in textile manufacturing*, those processing operations performed on greige fabric, colored fabric, textile yarns or fibers to ready them for dyeing, printing or finishing.

NOTE: For example, typical greige cotton fabric preparation includes singeing, desizing, scouring, bleaching and (optionally) mercerizing. *Source:* Committee RA93.

prespotting, n.—*in cleaning*, a pretreatment to remove or enhance removal of soil or stains in a local area. (see also *spotting*.) *Source:* Committee RA93.

printing, n.—*in textile manufacturing*, a process for applying colorants or other materials to the surface of a substrate, usually to produce a design. *Source:* Committee RA93.

professional wetcleaning, n.—a process for cleaning sensitive textiles (e.g., wool, silk, rayon, linen) in water by professionals using special technology, detergents and additives to minimize the potential for adverse effects. It is followed by appropriate drying and restorative finishing procedures. *Source:* Committee RA43.

pyranometer, n.—a radiometer used to measure the global solar irradiance or, if inclined, hemispherical solar irradiance. *Source:* TM 16, 111.

radiant energy, n.—energy traveling through space in the form of photons or electromagnetic waves of various lengths. *Source:* TM 111, 169, 186.

radiant exposure, n.—time integral of irradiance. *Source:* TM 111, 181.

radiant flux density, n.—rate of flow of radiant energy past the specimen. *Source:* TM 111, 169.

radiant power, n.—energy per unit time emitted, transferred or received as radiation. *Source:* TM 16, 111, 169.

radiometer, n.—an instrument used to measure radiant energy. *Source:* TM 16, 111.

rating, v.—*in textile testing*, the process for determining or assigning a grade to a material by comparing it to a standard reference scale. *Source:* Evaluation Procedure 8.

reactive dye, n.—a dye that, under suitable conditions, is capable of reacting chemically with a substrate to form a covalent dye-substrate linkage. *Source:* Committee RA87.

reference fabric, n.—one or more blue wool lightfastness standards selected for exposure as a check on a test apparatus and operating conditions. *Source:* TM 111, 192.

reference plastic, n.—a clear polystyrene plastic standard selected for exposure as a check on a test apparatus and operating conditions. *Source:* TM 111, 192.

reference standard, n.—a homogeneous lot of material having a known or accepted value for one or more physical or chemical properties and selected for use to verify performance of test apparatus under specified operating conditions. *Source:* TM 181.

reference standard, n.—a material that defines the specific color to be matched, and may also be used to define other appearance properties, such as finish, texture and construction. *Source:* Evaluation Procedure 9.

reflectance, n.—the ratio of the reflected radiant or luminous energy (light) to the incident energy in the given conditions. *Source:* Evaluation Procedure 6.

reflectance factor, n.—the ratio of the light reflected from the specimen to the light reflected from the perfect reflecting diffuser under the same geometric and spectral conditions of measurement. *Source:* Evaluation Procedure 6.

relaxation dimensional change, n.—the dimensional change that occurs when a fabric is immersed in water without agitation so that the strains and stresses put into fibers, yarns or fabrics during previous processing stages such as spinning, weaving or knitting and finishing are relieved. *Source:* TM 99.

relative color strength, n.—*in spectrophotometric testing of dyes*, the percentage of the color strength of a sample relative to that of a reference dye assigned a color strength of 100%. *Source:* TM 182.

restoration force, n.—the energy brought to bear on a fabric to accomplish a dimensional restoration. *Source:* TM 160.

retained chlorine, n.—*in textiles bleached with chlorine-type bleaches*, available chlorine which remains in the material after washing and drying. *Source:* TM 92, 114.

rewetting agent, n.—*in textile preparation, dyeing and finishing*, a surfactant which, after application and drying onto textiles, promotes rapid wetting on subsequent exposure to an aqueous solution. *Source:* TM 27.

rhe, n.—the unit of fluidity; the reciprocal of the unit of viscosity (the poise). *Source:* TM 82.

rot resistance, n.—*in textiles*, resistance to deterioration of a textile material as a result of fungal growth in or on it.

NOTE: Such deterioration is normally assessed by measuring loss in tensile strength. *Source:* TM 30, 174.

rug, n.—a textile floor covering of limited area which is complete in itself and is intended for use as a partial covering of a floor or another floor covering. *Source:* TM 137, 165, 171.

rug back, n.—(1) that part of a rug

normally in contact with the floor; (2) the underside of a rug as opposed to the use surface. *Source:* TM 137.

scouring, n.—*in textile processing*, treatment of textile materials in aqueous or other solutions to remove nature fats, waxes, proteins and other constituents as well as dirt, oil and other impurities. *Source:* Committee RA93.

seam smoothness, n.—*in fabrics*, the visual impression of planarity of a seamed specimen quantified by comparison with a set of reference standards. *Source:* TM 88B, 143.

semi-axes (ℓS_L, cS_C, S_H), n.—*in color difference evaluation*, individual dimensions of the CMC volume which are used to calculate a ΔE_{CMC} value. *Source:* TM 173.

sequestering agent, n.—see *chelating agent*.

shade change, n.—a change from the normal or expected color of a textile material. (see also *color change*.) *Source:* TM 161.

shading, n.—*in colored textile fabrics*, gradual changes in hue, chroma and/or lightness lengthwise or widthwise.

NOTE: When unintended, shading is considered a defect; may be intentional for styling purposes. *Source:* Committee RA93.

skewness, n.—a fabric condition resulting when filling yarns or knitted courses are angularly displaced from a line perpendicular to the edge or side of the fabric (see ASTM Terminology D 123). *Source:* TM 179.

shrinkage, n.—a dimensional change resulting in a decrease in the length or width of a specimen. *Source:* TM 96, 99, 135, 150, 160, 187.

smoothness appearance, n.—*in fabrics*, the visual impression of planarity of a specimen quantified by comparison with a set of reference standards. *Source:* TM 124, 128, 143.

sodium hypochlorite bleach, n.—4-6% solution of sodium hypochlorite (NaOCl), pH 9.8-12.8, commonly called "chlorine bleach." *Source:* TM 188.

soil, n.—dirt, oil or other substances not normally intended to be present on a substrate such as a textile material. *Source:* TM 121, 122, 123, 130.

soil affinity, n.—the reduction in reflectance between new and soiled fabrics. (see also *cleanness*) *Source:* TM 151.

soiling, n.—*in textiles*, a process by which a textile substrate becomes more or less uniformly covered with/or impregnated with soil. *Source:* TM 121, 122, 123.

soil redeposition, n.—the soiling of clean or relatively clean fabric during the laundering process by soil which has been removed from another fabric. *Source:* TM 151.

soil release, n.—the degree to which a soiled substrate approaches its original, unsoiled appearance as a result of a care procedure. *Source:* TM 130.

soil resist agent, n.—a material applied to, or incorporated in, carpet face fiber which retards and/or limits the build-up of soil. *Source:* TM 189.

solubilized sulfur dye, n.—a thiosulfuric acid derivative of a sulfur dye which during dyeing is converted to the substantive alkali-soluble thiol form. *Source:* Committee RA87.

solubilized vat dye, n.—a water-soluble salt of the sulfuric ester of a leuco vat dye.

NOTE: After application to the fiber the parent vat dye is regenerated by hydrolysis and oxidation. *Source:* Committee RA87.

solvent dye, n.—a dye which is soluble in organic solvents, but not in water, and is widely used in lacquers, inks, waxes, plastics, soaps, cosmetics, fuels and colored smokes. *Source:* Committee RA87.

specimen, n.—a specific portion of a material or laboratory sample upon which a test is performed or which is selected for that purpose. *Source:* TM 111, 181, 192.

speck, n.—a small particle, such as an agglomerate in a liquid dispersion, or a very small spot of dark color on a dyed substrate. *Source:* TM 176.

speckiness, n.—*in textile dyeing and printing*, the quality or state of containing specks. *Source:* TM 176.

spectral energy distribution, n.— the variation of energy due to the source over the wavelength span of the emitted radiation. *Source:* TM 111, 169, 186, 192.

spectral transmittance, n.—the percent of incident radiant energy passing through a given material and not absorbed in the process, as a function of wavelength. *Source:* TM 111, 169.

specular reflection, n.—the reflection without diffusion, in accordance with the laws of optical reflection, as in a mirror. *Source:* Evaluation Procedure 6.

spin finish, n.—a material applied to manufactured fibers by the producer to facilitate subsequent processing.

NOTE: Spin finishes may lubricate yarns, alter hand and bulk, control slippage in wet finishing, maintain package density, etc. *Source:* Committee RA93.

spotting, n.—*in cleaning*, application of solvent or solution to a material prior to or after commercial scouring, laundering, or drycleaning to remove or enhance removal of soil or stains in a local area. (see also *prespotting*.) *Source:* Committee RA93 and TM 157.

stability, n.—*of dye dispersions*, the resistance to chemical decomposition, physical disintegration, agglomeration or any combination of these. *Source:* TM 166.

stain, n.—a local deposit of soil or discoloration on a substrate that exhibits some degree of resistance to removal, as by laundering or drycleaning. *Source:* TM 130.

stain, n.—*for pile floor covering*, a discoloration due to a color adding material, such as food or liquid, that exhibits resistance to removal by standard cleaning methods. *Source:* TM 175.

stainblocker, n.—a chemical substance which, when applied to a textile substrate, imparts partial or total resistance to staining. *Source:* TM 175.

standard atmosphere for testing textiles, n.—air maintained at 21 ± 1C (70 ± 2F) and 65 ± 2% relative humidity. *Source:* TM 111, 169, 186, 192.

standard depth scale, n.—*in color measurement*, a series of dyed samples of different hue and chroma that have been accepted to have the same depth. *Source:* Evaluation Procedure 4.

standardization, n.—*of color measuring instrument*, the act of measuring one or more standard materials with a color measuring instrument for the purpose of calculating a set of correction factors to be applied to all subsequent measurements. *Source:* Evaluation Procedure 6.

steam cleaning, n.—see the correct term, *hot water extraction*. *Source:* TM 171.

steaming, n.—*in textile dyeing or printing*, treatment with moist steam to promote penetration and/or fixation of the dye.

NOTE: The steam may be neutral, acid, or air-free depending on the dye class. *Source:* Committee RA93.

stone-washed, adj.—*in garment processing*, a descriptive term denoting alteration of the appearance of a new garment to give it a worn or laundered appearance. SYN: *washdown*. *Source:* Committee RA93.

substrate, n.—*in textiles*, a fiber, fiber assembly, yarn, fabric or film to which another material is applied. *Source:* Committee RA93.

sulfur dye, n.—a dye, containing sulfur both as an integral part of the chromophore and in attached polysulfide chains, normally applied in the alkali-soluble reduced (leuco) form from a sodium sulfide solution and subsequently oxidized to the insoluble form in the fiber. *Source:* Committee RA87, TM 26.

surface active agent, n.—see *surfactant*. *Source:* Committee RA93.

surfactant, n.—a soluble or dispersible material which reduces the surface tension of a liquid, usually water. *Source:* Committee RA93.

tearing strength, n.—the average force required to continue a tear previously started in a fabric. *Source:* TM 111, 169, 192.

textile floor covering, n.—an article having a use-surface composed of textile material and generally used for covering floors. *Source:* TM 121, 122, 123, 138, 165, 171.

thermal finishing, n.—the process of

applying heat to textiles to impart desired functional and/or aesthetic characteristics.

NOTE: Thermal finishing includes heat setting, hot embossing, etc. but excludes drying. *Source:* Committee RA93.

thermal fixation, n.—the use of dry heat to achieve a degree of permanence when applying colorants to textile materials. *Source:* TM 154.

tinctorial strength, n.—the effectiveness of a given mass of dye in coloring a given mass of material. *Source:* Evaluation Procedure 4.

tint, n.—a colorant, applied to a substrate for purposes of identification, which is easily removed from the substrate by subsequent wet treatment. *Source:* Committee RA93.

tint, n.—*in whiteness measurement*, the hue of a white material as influenced by the wavelength of peak emission or reflectance (CIE 15.2). *Source:* TM 110.

total irradiance, n.—radiant power integrated over all wavelengths at a point in time expressed in watts per square meter (W/m^2). *Source:* TM 16, 169, 181.

tolerance range specimens, n.—selected specimens which deviate from the reference standard in hue, lightness, chroma, or in combinations of the three, and impose a range of observable color differences around the reference standard for evaluation purposes. *Source:* Evaluation Procedure 9.

transfer, n.—*in textile processing, testing, storage and use*, movement of a chemical, dye or pigment between fibers within a substrate or between substrates. (see also *migration*, *leveling*.) *Source:* TM 155, 156, 159, 163.

transmittance, n.—*of light*, that fraction of the incident light of a given wavelength which is not reflected or absorbed, but passes through a substance.

NOTE: In this test, the transmittance of the material is measured on a spectrophotometer, and corrected for that of pure solvent for the same path length. *Source:* TM 182.

transmittance, n.—the ratio of transmitted light to incident light under specified geometric and spectral conditions.

NOTE: Regular transmittance (of transparent materials) is the ratio of undiffused transmitted light to incident light. *Source:* Evaluation Procedure 6.

transmittance factor, n.—the ratio of the light transmitted by a specimen and evaluated by a receiver to the light passing through the same optical system and evaluated by the receiver when the specimen is removed from the system. *Source:* Evaluation Procedure 6.

ultraviolet protection factor (UPF), n.—the ratio of the average effective ultraviolet radiation (UV-R) irradiance transmitted and calculated through air to the average effective UV-R irradiance transmitted and calculated through fabric. *Source:* TM 183.

ultraviolet radiation, n.—radiant energy for which the wavelengths of the monochromatic components are smaller than those for visible radiation and more than about 100 nm.

NOTE: The limits of the spectral range of ultraviolet radiation are not well defined and may vary according to the user. Committee E-2.1.2 of the CIE distinguishes in the spectral range between 400 and 100 nm:

UV-A	315-400 nm
UV-B	280-315 nm
UV-C	100-280 nm

Source: TM 16, 111, 181.

ultraviolet radiation, n.—radiant energy for which the wavelengths of the monochromatic components are smaller than those for visible radiation and more than about 100 nm.

NOTE: The limits of the spectral range of ultraviolet radiation are not well defined and may vary according to the user. Committee E-2.1.2 of the CIE distinguishes in the spectral range between 400 and 100 nm:

UV-A	315-400 nm
UV-B	280-315 nm
UV-R	280-400 nm

Source: TM 183, 186.

union dyeing, n.—a process of dyeing textiles containing fibers having different dye affinities to achieve the appearance of a uniform, homogenous color. (see also *cross dyeing*.) *Source:* Committee RA93.

unlevelness, n.—*in textile dyeing and finishing*, nonuniform distribution of a dye or chemical in or on a substrate. (compare *leveling* and *shading*.) *Source:* Committee RA93.

use-surface, n.—*of textile floor covering*, the part of a textile floor covering directly exposed to foot traffic. *Source:* TM 121, 122, 123, 138, 165, 171.

UV-A Type Fluorescent UV lamp, n.—a fluorescent UV lamp where radiant emission below 300 nm is less than 2% of its total light output. *Source:* TM 186.

UV-B Type Fluorescent UV lamp, n.—a fluorescent UV lamp where radiant emission below 300 nm is more than 10% of its total light output. *Source:* TM 186.

vat dye, n.—a water-insoluble dye, usually containing keto groups, which is normally applied to the fiber from an alkaline aqueous solution of the reduced enol (leuco) form which is subsequently oxidized in the fiber to the insoluble form. *Source:* TM 176.

verification standard, n.—*in color measurement*, any stable material which is used for the purpose of confirming (or verifying) the validity of an instrument standardization. Color measurements, which are made immediately following standardization, are compared to original measurements of the standard to detect improper standardization. *Source:* Evaluation Procedure 6.

visible radiation, n.—any radiant energy capable of causing a visual sensation.

NOTE: The limits of the spectral range of visible radiation are not well defined and may vary according to the user. The lower limit is generally taken between 380 and 400 nm and the upper limit between 760 and 780 nm (1 nanometer, 1 nm = 10^{-9} m). *Source:* TM 16, 111.

volume of acceptability, n.—*in color difference evaluation*, the volume of the ellipsoid obtained when each semi-axis (ℓS_L, cS_C, S_H) is multiplied by cf—creating an agreed volume describing the limits of commercial acceptability for the color difference about a standard. *Source:* TM 173.

wand, n.—a tool used to deliver cleaning solution to carpets and apply vacuum to remove the solution.

NOTE: A *wand* usually consists of an extension handle and a *cleaning head*. Various types are light weight wand, drag wand (heavy duty) and power wand which has a motorized rotating or vibrating part to aid soil release. *Source:* TM 171.

washdown, n.—*in processing new fabrics or garments*, a change in appearance to give a worn or laundered look resulting from washing, scouring, chemical, mechanical, or other treatment, including any combination of such treatments. (see also *stone-washed*.) *Source:* Committee RA93.

washing, n.—*in textile processing*, vigorous treatment with water, usually heated, to remove impurities, chemicals, or dyes in preparation, dyeing, or finishing. *Source:* Committee RA93.

washing, n.—*in testing textile floor coverings*, a specific wet cleaning process involving the use of detergent and scrub brush to remove soil and/or extraneous matter residing in the pile fibers. *Source:* TM 138.

water repellency, n.—*in textiles*, the characteristic of a fiber, yarn or fabric to resist wetting. (see also *water resistance*.) *Source:* TM 22, 70, 127.

water resistance, n.—*of fabric*, the characteristic to resist wetting and penetration by water. (see also *water repellency*.) *Source:* TM 35, 42, 127.

weather, n.—climatic conditions at a given geographical location including such factors as sunlight, rain, humidity and temperature. *Source:* TM 111, 169, 186, 192.

weather resistance, n.—ability of a material to resist degradation of its properties when exposed to climatic conditions. *Source:* TM 111, 169, 186, 192.

wet pick-up, n.—*in textile processing*, the amount of liquid, and material carried by the liquid, applied to a textile. (see also *add-on*.)

NOTE: Wet pick-up is usually determined as a percentage of either the dry or conditioned weight of the textile prior to processing. *Source:* Committee RA93.

wet processing, n.—*in textile manufacturing*, a collective term for processes included in preparation, dyeing, printing and finishing in which the textile material is treated with a liquid, normally water, or with chemicals in solution or dispersion in a liquid. *Source:* TM 81, 144.

wet soiling, n.—the application of soil from a liquid medium. *Source:* TM 151.

wetting agent, n.—a chemical compound which when added to water lowers both the surface tension of the liquid and its interfacial tension against the solid material. *Source:* TM 17, 27, 43.

whiteness, n.—the attribute by which an object color is judged to approach a preferred white (ASTM E 284). *Source:* TM 110.

wool, n.—used in the generic sense, fiber from the fleece of the sheep or lamb, hair from the Angora or Cashmere goat, rabbit hair, and the so-called specialty hair fibers from camel, alpaca, llama and vicuna. *Source:* TM 96, 99.

wool oil, n.—a lubricant applied to wool or hair fibers to facilitate subsequent processing. *Source:* Committee RA93.

wrinkle recovery, n.—that property of a fabric which enables it to recover from folding deformations. *Source:* TM 66, 128.

xenon reference fabric, n.—a dyed polyester fabric used for verifying xenon-arc equipment test chamber temperature conditions during a lightfastness test cycle. *Source:* TM 16.

yarn lubricant, n.—a material applied to yarn to reduce friction and static generation and thus facilitate subsequent processing. *Source:* Committee RA93.

zone of inhibition, n.—clear area of no growth of a microorganism, cultured onto the surface of agar growth medium, in proximity to the borders of a specimen placed in direct contact with this agar surface.

NOTE: A zone of inhibition occurs as result of the diffusion of an antimicrobial agent from the specimen. *Source:* TM 147, 174.

Appendix A
References

A.1 *A Dictionary of Textile Terms*, 12th ed., 1976; Dan River Inc., 111 West 40th St., New York NY 10018.

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