

GLOSSARY

Effective communication among those who work in the tile trade is most important. Each tilesetter must know the correct meaning of the words he uses in his trade. This is particularly important in the construction industry, where several trades may have different meanings for the same word.

Slang words that are used throughout the tile trade have been included in this Glossary. These words are most important for the apprentice tile setter to understand. Slang words may vary from one geographical area

to another, and instructors and students are urged to suggest additional terms through the channels available in their schools.

The origins of some of the definitions in the Glossary are indicated in parentheses following the definition. The designations used are as follows: ASTM (American Society for Testing and Materials); TCA (Tile Council of America); CTI (Ceramic Tile Institute) and SS-T-308b (Federal Specification for Ceramic Tile, Floor, Wall, and Trim Units).

Abrams' law. A rule stating that with given concrete materials and conditions of test the ratio of the amount of water to the amount of the cement in the mixture determines the strength of the concrete, provided the mixture is of a workable consistency. (See also Water-cement ratio.)

Abrasion. Wearing away by friction.

Abrasion resistance. Ability of a surface to resist being worn away by rubbing and friction.

Absorbed moisture. Moisture that has entered a solid material by absorption and has physical properties not substantially different from ordinary water at the same temperature and pressure. (See also Absorption.)

Absorption. The relationship of the weight of the water absorbed by a ceramic specimen subjected to prescribed immersion procedure, to the weight of the dry specimen, expressed in percent. (ASTI1 C 242).

Accelerator. A substance which, when added to concrete, mortar, or grout, increases the rate of hydration of the hydraulic cement, shortens the time of setting, or increases the rate of hardening of strength development, or both. (See also Acceleration.)

Accelerators. Materials used to speed up the setting of mortar.

Accessories (Tile Accessories). Ceramic or non-ceramic articles, affixed to or inserted in tile work, as exemplified by towel bars, paper, soap and tumbler holders, grab bars and the like.

Acid. A chemical substance usually corrosive to common

metals (iron, aluminum, zinc) and which, in water solution, imparts an acid, sour or tart taste. Acids are generally divided into two classes: (a) strong mineral or inorganic acids such as sulfamic, sulfuric, phosphoric, hydrochloric or nitric, (b) weak organic or natural acids such as acetic (vinegar), citric (citrus fruit juices), oxalic and fatty acids (oleic, palmitic, stearic, etc.)

Acid- and alkali-resistant grout. A grout that resists the effect of prolonged contact with acids and alkalis.

Acidity. A general term applying to substances on the acid side of neutral - principally the degree of acidity.

Acrylic. A general class of resinous polymers derived from esters, amides or other acrylic acid derivatives.

Acrylic plastics. Plastics based on resins made by the polymerization of acrylic monomers, such as ethyl acrylate and methacrylate.

Additive. A term frequently (but improperly) used as a synonym for addition or admixture.

Adhesion. The state in which two surfaces are held together by interfacial forces which may consist of valence forces or interlocking action, or both. (See also Adhesion, mechanical and Adhesion, specific.)

Adhesion, mechanical. Adhesion between surfaces in which the adhesive holds the parts together by interlocking action. (See also Adhesion, specific.)

Adhesion, specific. Adhesion between surfaces which are held together by valence forces of the same type as those which give rise to cohesion. (See also Adhesion, mechanical.)

Adhesive. A substance capable of holding materials together by surface attachment. Note: Adhesive is the general term and includes among other cement, glue, mucilage and paste. All of these terms are loosely used interchangeably. Various descriptive adjectives are applied to the term adhesive to indicate certain characteristics as follows: (a) Physical form, that is liquid adhesive, tape adhesive, (b) Chemical type, that is, silicate adhesive, resin adhesive, (c) Materials bonded, that is, paper adhesive, metal-plastic adhesive, can label adhesive, (d) Conditions of use, that is, hot-setting adhesive.

Adhesive ceramic. Used for bonding tile to a surface. Rubber solvents; and rubber and resin-based emulsions can be used as adhesives.

Adhesive, pressure-sensitive. An adhesive made so as to adhere to a surface at room temperature by briefly applied pressure alone.

Adhesive, solvent. An adhesive having a volatile organic liquid as a vehicle. Note: This term excludes water-based adhesives.

Adhesive tile. Organic adhesive used for bonding tile to a surface. Rubber solvents and resin-based and rubber emulsions can be used as adhesives. (TCA)

Admixture. A material other than water, aggregates, and hydraulic cement, used as an ingredient of concrete or mortar, and added to the concrete immediately before or during its mixing.

Adobe. Unburnt brick dried in the sun.

Aggregate. Granular material, such as sand, gravel, crushed stone, and iron blast-furnace slag, used with a cementing medium to form a hydraulic-cement, concrete or mortar. (See also Aggregate, heavyweight and Aggregate, lightweight.)

Aggregate, heavyweight. Aggregate of high specific gravity such as barite, magnetite, limonite, ilmenite, iron or steel used to produce heavy concrete.

Aggregate, lightweight. Aggregate of low specific gravity, such as expanded or sintered clay, shale, slate, diatomaceous shale, perlite, vermiculite, or slag; natural pumice, scoria, volcanic cinders, tuff, and diatomite; sintered fly ash or industrial cinders; used to produce lightweight concrete.

Air, entrained. See Entrained air.

Air-entraining. The capability of a material or process to develop a system of minute bubbles of air in cement, mortar, or concrete during mixing.

Air-entrainment. The occlusion of air in the form of minute bubbles (generally smaller than 1mm) during the mixing of concrete or mortar. (See also Air entraining and Entrained air.)

Air-slack. A condition where soft-body clay, after absorbing moisture and being exposed to the atmosphere, will spall a piece of clay and/or glaze.

Alkali. A chemical substance which effectively neutralizes acid material so as to form neutral salts. A base. The opposite of acid. Examples are ammonia and caustic soda.

Alumina porcelain. A vitreous ceramic whiteware for

technical application in which alumina (Al_2O_3) is the essential crystalline phase. (ASTM C 242).

Alumina whiteware. Any ceramic whiteware in which alumina (Al_2O_3) is the essential crystalline phase. (ASTM C 242).

Andalusite. A polymorph, along with sillimanite and kyanite, of composition $Al_2O_3 \cdot SiO_2$. On firing, it dissociates to yield principally mullite. (ASTM C 21)

Angle divider. The angle divider is used by the tilesetter to determine the degree of an angle to cut. It is used for fitting trim, moldings, and floors into corners. A corner angle is measured by adjusting the divider to fit the corner.

Ashlar. Masonry composed of squared stones; one pattern of masonry construction.

Autoclave. A pressure vessel in which an environment of steam at high pressure may be produced; used in the curing of concrete products and in the testing of hydraulic cement.

Autoclave curing. Steam curing of concrete products, sand-lime brick, asbestos-cement products, hydrous calcium silicate insulation products, or cement in an autoclave at maximum ambient temperatures generally between 340-420 F (170-215 C).

Backing off. See Featheredging tile.

Back-mounted tile. See under Tile, mounted.

Back wall. The wall facing an observer who is standing at the entrance to a room, shower, or tub shower.

Backing. Any material used as a base over which a finished material is to be installed.

Balanced cuts. Cuts of tile at the perimeter of an area that will not take full tiles. The cuts on opposite sides of such an area shall be the same size. Also the same sized cuts on each side of a miter.

Ball clay. A secondary clay, commonly characterized by the presence of organic matter, high plasticity high dry strength, long vitrification range, and a light color when fired. (ASTM C 242).

Ball milling. A method of grinding and mixture material, with or without liquid, in a rotating cylinder or conical mill partially filled with grinding media such as balls or pebbles. (ASTM C 242).

Bar support. A rigid device used to support or hold reinforcing bars in proper position to prevent displacement before or during concrete placement.

Basalt ware. A black unglazed vitreous ceramic ware having the appearance of basalt rock. (ASTM C 242).

Base. One or more rows of tile installed above the floor. See Cove.

Basis for acceptance. The method of determining whether a lot of ceramic tile is acceptable under these specifications.

Batch mixer. A machine which mixes batches of concrete or mortar in contrast to a continuous mixer.

Batch plant. An operating installation of equipment including batchers and mixers as required for batching or for batching and mixing concrete materials; also called mixing plant when equipment is included.

- Beating block.** A wooden block used to embed tiles in a flat plane. The method used is called beating in.
- Belleek china.** A highly translucent whiteware composed of a body containing a significant amount of frit and normally having a luster glaze. (Produced commercially at Belleek, Ireland.) (ASTM C 242).
- Bench mark.** Permanent reference point or mark.
- Beryllium oxide (berylla) (BeO).** An inorganic material of exceptionally high thermal conductivity which is toxic in the powder form.
- Bentonite.** A clay composed principally of minerals of the montmorillonoid group, characterized by high absorption and very large volume change with wetting or drying.
- Biscuit chips.** Glazed-over chips on the edge or corner of the body of a tile.
- Biscuit cracks.** Any fractures in the body of a tile visible both on face and back.
- Bisque fire.** See Fire, bisque.
- Blaine fineness.** The fineness of powdered materials such as cement and pozzolans, expressed as surface area usually in square centimeters per gram, determined by the Blaine apparatus.
- Bleb.** A small blister or bubble.
- Bleeding.** The autogenous flow of mixing water within, or its emergence from newly placed concrete or mortar; caused by the settlement of the solid materials within the mass; also called water gain.
- Blend.** To mix or make homogeneous.
- Blistering.** The development during firing of enclosed or broken macroscopic vesicles or bubbles in a body, or in a glaze or other coating. (ASTM C 242).
- Block angle.** A square of tile specially made for changing direction of the trim.
- Bloom.** A visible exudation or efflorescence on the surface.
- Blots.** Green marks or stains on the face of a tile.
- Blunging.** The wet process of blending, or suspending ceramic material in liquid by agitation. (ASTM C 242).
- Body.** The structural portion of a ceramic article. This term also refers to the material or mixture from which the article is made. (ASTM C 242).
- Bond.** The adherence of one material to another. Effective bonds must be achieved between the mortar and scratch coat, between the tile and mortar, and between the adhesive and backing.
- Bonding agent.** A substance applied to a suitable substrate to create a bond between it and a succeeding layer as between a subsurface and a terrazzo topping or a succeeding plaster application.
- Bone ash.** Calcined bone consisting essentially of calcium phosphate. (ASTM C 242).
- Bone china.** A translucent china made from a ceramic whiteware body composition containing a minimum of 25 percent bone ash. (ASTM C 242).
- Bond breaker.** A material used to prevent adhesion of newly placed concrete and the substrate.
- Bond coat.** A material used between the back of the tile and the prepared surface. Suitable bond coats include pure portland cement, Dry-Set portland cement mortar, latex-type portland cement mortar, organic adhesive, and the like.
- Brick trowel.** The brick trowel is larger than the buttering trowel. The most popular size used by tilesetters is 5" wide and 11" long. It is used when any preparatory brick work has to be done. Some tilesetters use it for quarry and terra cotta tilework. Its greater surface and weight are advantageous in the buttering and tapping in of the larger tiles.
- Bridge.** A straightedge used as a starting line for the laying of tile. The straightedge can be blocked up to support tile over an opening.
- Bridge deck.** The slab or other structure forming the travel surface of a bridge.
- Bright glaze.** colorless or colored ceramic glaze having high gloss. (ASTM C 242).
- Broom finish.** The surface texture obtained by stroking a broom over freshly placed concrete. (See also Brushed surface.)
- Brown coat.** The second coat in three-coat plaster application.
- Brushed surface.** A sandy texture obtained by brushing the surface of freshly placed or slightly hardened concrete with a stiff brush for architectural effect or, in pavements, to increase skid resistance. (See also Broom finish.)
- Bull float.** A tool comprising a large, flat, rectangular piece of wood, aluminum, or magnesium usually 8 in. (20 cm) wide and 42 to 60 in. (100 to 150 cm) long, and a handle 4 to 16 ft. (1 to 5 cm) in length used to smooth unformed surfaces of freshly placed concrete.
- Bullnose.** A trim tile with a convex radius on one edge. This tile is used for finishing the top of a wainscot or for turning an outside corner.
- Bullnose corner.** A type of bullnose trim with a convex radius on two adjacent edges.
- Bulking.** Increase in the bulk volume of a quantity of sand in a moist condition over the volume of the same quantity dry or completely inundated.
- Bulking curve.** Graph of change in volume of a quantity of sand due to change in moisture content.
- Bulking factor.** Ratio of the volume of moist sand to the volume of the sand when dry.
- Building official.** The official charged with administration and enforcement of the applicable building code, or his duly authorized representative.
- Bundled bars.** A group of not more than four parallel reinforcing bars in contact with each other, usually tied together.
- Burlap.** A coarse fabric of jute, hemp, or less commonly, flax, for use as a water-retaining covering in curing concrete surfaces; also called Hessian.
- Bushhammer.** A hammer that has a rectangular head with serrated or jagged faces. The bushhammer is used for roughing concrete to provide a bond for masonry.
- Butterfly.** A slang term for inside corner angles for trim shapes such as AB 106, AF 105, AF 200, AK 106, and AU 106.

- Buttering.** The spreading of a bond coat (followed by a mortar coat, a thin-setting bed mortar, or an organic adhesive) to the backs of ceramic tile just before the tile is placed.
- Buttering trowel.** The blade of the buttering trowel is 4 1/8" wide and 7" long. It is used in buttering pure cement to tile, a method commonly used in the eastern states. The trowel is more efficient than the pointer for working on the larger and heavier tiles because more weight can be placed on it.
- Butt joint.** A plain square joint between two members.
- Buttonback Tile.** Tile that have projections on the bondable side. Many of, these projections are round and therefore the term buttonback. Some projections are quite thick and can also be other shapes, such as square.
- Calcine.** A ceramic mineral or mixture fired to less than fusion for use as a constituent in a ceramic composition. (ASTM C 242).
- Camber.** A deflection that is intentionally built into a structural element or form to improve appearance or to nullify the deflection of the element under the effects of loads, shrinkage and creep.
- Cap.** See Bullnose.
- Cassiterite (Sri 02).** An inorganic mineral of the tetragonal form used as a source of tin and tin oxide. (ASTM C 21)
- Casting.** Forming ceramic ware by introducing a body slip into a porous mold which absorbs sufficient water from the slip to produce a semirigid article. (ASTM C 242).
- Casting, drain (hollow casting).** Forming ceramic ware by introducing a body slip into an open porous mold, and then draining off the remaining slip when the cast has reached the desired thickness. (ASTM C 242).
- Cast-in-place.** Mortar or concrete which is deposited in the place where it is required to harden as part of the structure, as opposed to precast concrete.
- Casting plaster.** A fast-setting gypsum plaster that is used to anchor marble to walls, set spots, or mix temporary "hot mud."
- Casting solid.** Forming ceramic ware by introducing a body slip into a porous mold which usually consists of two major sections, one section forming the contour of the inside of the ware and allowing a solid cast to form between the two mold faces. (ASTM C 242).
- Caulking compound.** A soft, plastic material consisting of pigment and vehicle, used for sealing joints in buildings and other structures where normal structural movement may occur. Caulking compound retains its plasticity for an extended period after application. It is available in forms suitable for application by gun and knife and in extruded preformed shapes.
- Ceiling mortar.** Extra-rich wall mortar.
- Cement.** Usually refers to portland cement which when mixed with sand, gravel, and water forms concrete. Generally, cement is an adhesive; specifically, it is that type of adhesive which sets by virtue of a chemical reaction.
- Cement-body tiles.** Tiles with the body made from a mixture of sand and portland cement. The surface may be finished with portland cement, spheroids of marble or other materials.
- Cement grout.** A cementitious mixture of portland cement, sand or other ingredients and water which produces a water resistant, uniformly colored material used to fill joints between tile units.
- Cement, masonry.** A hydraulic cement for use in mortars for masonry construction, containing one or more of the following materials: portland cement, portland blast-furnace slag cement, portland-pozzolan cement, natural cement, slag cement or hydraulic lime; and in addition usually containing one or more materials such as hydrated lime, limestone, chalk, calcareous shell, talc, slag, or clay, as prepared for this purpose.
- Cement mortar.** A cementitious mixture of portland cement, sand or other ingredients and water which is used for bonding tile to back-up material.
- Cement portland.** A hydraulic cement produced by pulverizing clinker consisting essentially of hydraulic calcium silicates, and usually containing one or more of the forms of calcium sulfate as an interground addition.
- Cement, white.** Portland cement which hydrates to a white paste; made from raw materials of low iron content, the clinker for which is fired by a reducing flame.
- Centigrade.** A scale of temperature which features 0° and 100° as the freezing and boiling point of water respectively. To convert centigrade to Fahrenheit multiply by 1.8 and add 32, e.g., (100°x1.8)+ 32=212°F.
- Ceramic article.** An article having a glazed or unglazed body of crystalline or partly crystalline structure, or of glass, which body is produced from essentially inorganic, nonmetallic substances and either is formed from a molten mass which solidifies on cooling or is formed and simultaneously or subsequently matured by the action of the heat. (ASTM C 242).
- Ceramic mosaic tile.** An unglazed tile formed by either the dust-pressed or plastic method, usually 1/8 to 3/8 in. (6.4 to 9.5 mm) thick, and having a facial area of less than 6 in.² and which is usually mounted on sheets approximately 2 by 1 ft. (0.3 by 0.6 m) to facilitate setting. Ceramic mosaic tile may be of either porcelain or natural clay composition and may be either plain or with an abrasive mixture throughout. (ASTM C 242).
- Ceramic paste.** A French term synonymous with "ceramic body." (ASTM C 242).
- Ceramic process.** The production of articles or coatings from essentially inorganic, nonmetallic materials, the article or coating being made permanent and suitable for utilitarian and decorative purposes by the action of heat at temperatures sufficient to cause sintering, solid-state reactions, bonding, or conversion partially or wholly to the glassy state. (ASTM C 242).
- Ceramic tile.** A ceramic surfacing unit, usually relatively thin in relation to facial area, made from clay or a mixture of clay; and other ceramic material, called the body of the tile, having either a "glazed" or "unglazed" face, and fired above red heat in the course of manufacture to a temperature sufficiently high to produce specific physical properties and characteristics.

- Ceramic whiteware. A fired ware consisting of a glazed or unglazed ceramic body which is commonly white and of fine texture. This term designates such products as china, porcelain, semivitreous ware and earthenware. (ASTM C 242).
- Ceramics. A general term applied to the art or technique of producing articles by a ceramic process, or to the articles so producing. (ASTM C 242).
- Chair. See Bar support.
- Chalk line. Usually cotton cord coated with chalk. The cord is snapped to mark a straight line. The chalk line is used to align spots or screeds.
- Checking. Short shallow cracks on the surface.
- Chemical porcelain. Vitreous ceramic whitewares used for containing, transporting, or reacting of chemicals. (ASTM C 242).
- China. A glazed or unglazed vitreous ceramic whiteware used for nontechnical purposes. This term designates such products as dinnerware, sanitary ware, and art ware when they are vitreous. (See also Bone china.) (ASTM C 242).
- China process. The method of producing glazed ware by which the ceramic body is fired to maturity, following which the glaze is applied and matured by firing at a lower temperature. (ASTM C 242).
- China sanitary ware (sanitary plumbing fixtures). Glazed, vitrified whiteware fixtures having a sanitary service function. (ASTM C 242).
- Chips. The scaling or breaking off at the edges of fragments from the surface of a tile, as might result from rough handling.
- Chipped. Caused from the same reasons as given under "pitted" or by rough handling and confined to the corners and edges of the tile.
- Chipping hammer. The chipping hammer is a lightweight hammer that comes in a variety of sizes. The head and back can be capped with tungsten carbide for durability. It is used by the tilesetter to chip excess material from the backs and edges of wall and quarry tiles, thus reducing the amount of grinding work necessary to smooth a cut.
- Clay. A natural mineral aggregate, consisting essentially of hydrous aluminum silicates; it is plastic when sufficiently wetted, rigid when dried en masse, and vitrified when fired to a sufficiently high temperature. (ASTM C 242).
- Clear glaze. A colorless or colored transparent ceramic glaze. (ASTM C 242).
- Cleavage membrane. A layer of 15 lb. roofing felt, or an equivalent type of construction paper or polyethylene sheeting, used to isolate a wire reinforced mortar bed for tile from the concrete substrate. (CTI)
- Cold joint. Any point in a tile installation where tile and setting bed have terminated and the surface has lost its plasticity before work is continued.
- Cold joint lines. Visible lines on the surfaces of formed concrete indicating the presence of joints where one layer of concrete had hardened before subsequent concrete was placed. (See also Cold joint).
- Ceramic Tile Institute
- Color. The aspect of the appearance of an object dependent upon the spectral composition of the incident light, the spectral reflectance of transmittance of the object, and the spectral response of the observer. Hue - The attribute by which a perceived color is distinguished as red, yellow, green, blue, purple or a combination of these. White, gray and black colors possess no hue. Lightness - The attribute by which a perceived color is judged to be equivalent to a member of the continuous series of grays ranging from black to white. Saturation - The attribute by which a perceived color is judged to depart from gray of equal lightness toward a pure hue.
- Colored grout. Commercially prepared grout consisting of carefully graded aggregate, portland cement, water dispersing agents, plasticizers and color fast pigments. (CTI).
- Column. A member used primarily to support axial compression loads and with a height of at least three times its least lateral dimension.
- Compaction. The process whereby the volume of freshly placed mortar or concrete is reduced to the minimum practical space usually by vibration, centrifugation, tamping, or some combination of these; to mold it within forms or molds and around embedded parts and reinforcement, and to eliminate voids other than entrained air.
- Composition tile. A hard tile surfacing unit made from a mixture of chemicals. The finished surface can be the mixture of chemicals or can be marble chips to create a terrazzo finish. The unit is made hard by the set of the chemicals and the product is not fired as in the manufacture of ceramic tile. (CTI)
- Compressive strength. The measured maximum resistance of a concrete or mortar specimen to axial loading; expressed as force per unit cross-sectional area; or the specified resistance used in design calculations, in the U.S. customary units of measure expressed in pounds per square inch (psi).
- Concrete. A composite material which consists essentially of a binding medium within which are embedded particles or fragments of aggregate; in portland cement concrete, the binder is a mixture of portland cement and water.
- Concrete, fibrous. Concrete containing, dispersed, randomly oriented fibers.
- Concrete, field. Concrete delivered or mixed, placed, and cured on the job site.
- Concrete, foamed. Concrete made very light and cellular by the addition of a prepared foam or by generation of gas within the unhardened mixture.
- Concrete, green. Concrete which has set but not appreciably hardened.
- Concrete, lightweight.
- Concrete, precast. See Precast concrete.
- Concrete pump. An apparatus which forces concrete to the placing position through a pipeline or hose.
- Concrete, prestressed. See Prestressed concrete.
- Concrete, pumped. See Pumped concrete.
- Concrete, refractory. See Refractory concrete.

- Concrete, terrazzo.** Marble-aggregate concrete that is cast-in-place precast and ground smooth for decorative surfacing purposes on floors and walls.
- Condensation.** Usually refers to liquid drops which form when a vapor is chilled below its boiling point. Also refers to water droplets that deposit on surfaces whose temperature is below the dewpoint.
- Conductive (adj.).** Having the quality or power of conducting or transmitting heat, electricity, or static electricity.
- Conductive mortar.** A tile mortar to which specific electrical conductivity is imparted through the use of conductive additives. (TCA)
- Conductive tile.** Tile made from special body compositions or by methods that result in specific properties of electrical conductivity while retaining other normal physical properties of ceramic tile. (SS-T-308b)
- Contaminated.** Stained tile as a result of carton and tile being saturated by moisture, oils, solvents or other materials.
- Contraction joint.** Formed, sawed, or tooled groove in a concrete structure to create a weakened plane and regulate the location or cracking resulting from the dimensional change of different parts of the structure. (See also Isolation joint.)
- Control joints.** See Expansion joints.
- Conventional installation.** The method of installing ceramic tile with portland cement mortar.
- Coping.** The material or units used to form a cap or finish on top of a wall, pier, pilaster, or chimney.
- Corbel.** A projection from the face of a beam, girder, column, or wall used as a beam seat or a decoration.
- Cordierite porcelain.** A vitreous ceramic whiteware for technical application in which cordierite ($2\text{MgO} \cdot 2\text{Al}_2\text{O}_3 \cdot 5\text{SiO}_2$) is the essential crystalline phase. (ASTM C 242).
- Cordierite whiteware.** Any ceramic whiteware in which cordierite ($2\text{MgO} \cdot 2\text{Al}_2\text{O}_3 \cdot 5\text{SiO}_2$) is the essential crystalline phase. (ASTM C 242).
- Corrosion.** The eating and wearing away by chemical action (pitting, rusting).
- Cove.** A trim tile unit having one edge with a concave radius. A cove is used to form a junction between the bottom wall course and the floor or to form an inside corner. (TCA)
- Cove base (sanitary).** A trim tile having a concave radius on one edge and a convex radius with a flat landing on the opposite edge. This base often is used as the only course of tile above the floor tile.
- Coverage.** A measure of the amount of material required to cover a given surface.
- Covering power.** The ability of a glaze to uniformly and completely cover the surface of the fired water. (ASTM C 242).
- Cracks.** Hair-line fissures.
- Crack-control reinforcement.** Reinforcement in concrete construction designed to prevent opening of cracks, often effective in limiting them to uniformly distributed small cracks.
- Cracked.** Tiles that have actually been cracked in one or more pieces usually during the beating in process of installation. These will show up as hairline cracks.
- Crawling.** A parting and contraction of the glaze on the surface of ceramic ware during drying or firing, resulting in unglazed areas bordered by coalesced glaze. (ASTM C 242-58T)
- Crazing.** The cracking which occurs in fired glazes or other ceramic coatings due to critical tensile stresses. (ASTM C 242).
- Creep.** Time-dependent deformation due to sustained load.
- Crooked edges.** A curvature of the sides, either convex or concave, measured along the sides. The degree of crook is the departure from the straight line between two corners, expressed in percentage of the tile length.
- Crow hop.** a slang term used to describe tile joints that are out of alignment.
- Crystalline glaze.** Glazed tile with an extra heavy glaze produced for use on counter tops and light duty floor surfaces where abrasion or impact is not excessive. (CTI)
- Curing.** Maintenance of humidity and temperature of freshly placed concrete during some definite period following placing, casting, or finishing to assure satisfactory hydration of the cementitious materials and proper hardening of the concrete.
- Curing, electrical.** A system in which a favorable temperature is maintained in freshly-placed concrete by supplying heat generated by electrical resistance.
- Curing, steam.** See Steam curing.
- Curing blanket.** A built-up covering of sacks, matting, hessian, straw, waterproof paper, or other suitable material placed over freshly finished concrete. (See also Burlap.)
- Curing compound.** A liquid that can be applied as a coating to the surface of newly placed concrete to retard the loss of water or, in the case of pigmented compounds, also to reflect heat so as to provide an opportunity for the concrete to develop its properties in a favorable temperature and moisture environment. (See also Curing.)
- Curling.** The distortion of an originally essentially linear or planar member into a curved shape such as the warping of a slab due to creep or to differences in temperature or moisture content in the zones adjacent to its opposite faces.
- Cushion-edged tile.** Tile on which the facial edges have a distinct curvature that results in a slightly recessed joint.
- Dago float.** A slang term used to describe the use of a fresh mortar screed in lieu of float strips to rod floor mortar. This method is commonly used in floor work. Italian terrazzo workers use this technique to align "concrete" for placement of brass or aluminum strips to the desired grade.

- Dago stick.** A slang term used by tilesetters when referring to a small piece of wood used to rod off mortar that has been applied to fill the holes caused by the removal of float strips.
- Darby.** A hand-manipulated straightedge, usually 3 to 5 ft. (1 to 2.5) long, used in the early stage leveling operations of concrete or plaster, preceding supplemental floating and finishing.
- Dash-bond coat.** A thick slurry of portland cement, sand, and water flicked on surfaces with a paddle or brush to provide a base for subsequent portland cement plaster coats; sometimes used as a final finish on plaster.
- D-cracking.** The progressive formation on a concrete surface of a series of fine cracks at rather close intervals, often of random patterns, but in slabs on grade paralleling edges, joints, and cracks and usually curving across slab corners. (Also termed D-cracks and D-line cracks.)
- D-load.** A constant load that in structures is due to the mass of the members, the supported structure, and permanent attachments or accessories.
- Deck.** The form on which concrete for a slab is placed, also the floor or roof slab itself. (See also Bridge deck.)
- Deck or floor mortar.** Mortar commonly used for decks or floors. It consists of sand and regular portland cement mixed with water to a firm consistency.
- Decorated.** Adorned, embellished, or made more attractive by means of color or surface detail. (ASTM C 242).
- Decorating fire.** See Fire, decorating.
- Decoration.** See Decoration, inglaze; Decoration, overglaze; Decoration, underglaze.
- Decoration, inglaze.** A ceramic decoration applied on the surface of an unfired glaze and matured with the glaze. (ASTM C 242).
- Decoration, overglaze.** A ceramic or metallic decoration applied and fired on the previously glazed surface of ceramic ware. (ASTM C 242).
- Decoration, underglaze.** A ceramic decoration applied directly on the surface of ceramic ware and subsequently covered with a transparent glaze. (ASTM C 242).
- Decorative tile.** Tile with a ceramic decoration on the surface. (See heading under Decorated and Decoration.)
- Deformation eutectic.** See Eutectic, deformation.
- Deflection.** A variation in position or shape of a structure or structural element due to effects of loads or volume change, usually measured as a linear deviation from an established plane rather than an angular variation.
- Delft ware.** A calcareous earthenware having an opaque white glaze and monochrome overglaze decorations. (Originated in Delft, Holland.) (ASTM C 242).
- Dinnerware.** Ceramic whiteware made in a given pattern and in a full line of articles comprising a dinner service. (ASTM C 242).
- Discoloration.** Departure of color from that which is normal or desired.
- Divider strips.** In terrazzo work, nonferrous metal or plastic strips of different thickness, and embedded depths usually 5/8 to 1/4 in. (10 to 40 mm), used to form panels in the topping.
- Dolomite.** The double carbonate of lime and magnesia having the general formula $\text{CaCO}_3 \cdot \text{MgCO}_3$. (ASTM C 242).
- Dope coat.** Neat cement applied to the setting bed.
- Double bullnose.** A type of trim with the same convex radius on two opposite sides.
- Double headed nail.** A nail with two heads at, or near, one end to permit easy removal; widely used in concrete formwork.
- Dowel.** A steel pin, commonly a plain round steel bar, which extends into two adjoining portions of a concrete construction, as at a joint in a pavement slab, so as to connect the portions and transfer shear loads. Also, as used in the construction of column and wall sections, a deformed steel reinforcing bar placed so as to transmit tension or compression as well as shear loads.
- Drain casting.** See Casting, drain.
- Dry edging.** Rough edges and corners of glazed ceramic ware due to insufficient glaze coating. (ASTM C 242).
- Dry mix.** See Process, dry.
- Dry pack.** Concrete or mortar mixtures deposited and consolidated by dry packing.
- Dry packing.** Placing of zero slump, or near zero slump, concrete, mortar, or grout by ramming into a confined space.
- Dry pressing.** See Pressing, dry.
- Dry process.** See Process, dry.
- Drying.** Removal by evaporation, of uncombined water or other volatile substance from a ceramic raw material or product, usually expedited by low temperature heating. (ASTM C 242).
- Dry spots.** Small areas on the face of tile which have been insufficiently glazed.
- Dry-set mortar.** A water-retentive hydraulic cement mortar usable with or without sand. When this mortar is used, neither the tile nor walls have to be soaked during the installation process.
- Dunting.** The cracking that occurs in fired ceramic bodies due to thermally induced stresses. (ASTM C 242-72)
- Dusting.** The application of dry portland cement to a wet floor or deck mortar surface. A pure coat is thus formed by suction of the dry cement.
- Dutchman.** A cut tile used as a filler in the run of a wall or floor area.
- Dynamite.** A slang term used by tilesetters when referring to a mortar accelerator.
- Eagle beak.** A 6"x 3/4" outside corner trim shape. (AC 106)
- Earthenware.** A glazed or unglazed nonvitreous ceramic whiteware. (ASTM C 242).
- Edgebonded tile.** See definition for PregROUTED tile.

- Edge-mounted tile. A type of mounted tile wherein tile is assembled into units or sheets and are bonded to each other at the edges or corners of the back of the tiles by an elastomeric or resinous material which becomes an integral part of the tile installation. Units or sheets must meet criteria of back-mounted sheets. See definition for Mounted tile.
- Efflorescence. The residue deposited on the surface of a material by the crystallization of soluble salts.
- Edger. A finishing tool used on the edges of fresh concrete to provide a rounded corner.
- Eggshelling. The texture of a fired glaze similar in appearance to the surface of an eggshell. (ASTM C 242).
- Electrical porcelain. Vitrified whiteware having an electrical insulating function. (ASTM C 242).
- Electrolysis. Production of chemical changes by the passage of current through an electrolyte.
- Embossment. A decoration in relief or excised on the ware. (ASTM C 242).
- Embossed. A decoration in relief or excised on the ware surface. (ASTM C 242).
- Engobe. A slip coating applied to a ceramic body for imparting color, opacity or other characteristics, and subsequently covered with a glaze. (ASTM C 242).
- Entrained air. Microscopic air bubbles intentionally incorporated into mortar or concrete during mixing, usually by use of a surface-active agent, typically between 10 and 1,000 pm in diameter and spherical or nearly so. (See also Air entrainment.)
- Epoxy adhesive. A two-part adhesive system employing epoxy resin and epoxy hardener used for bonding of ceramic tile to back-up materials.
- Eutectic, deformation. The composition within a system of two or more components which, on heating under specific conditions, develops sufficient liquid to cause deformation at minimum temperature. (ASTM C 242).
- Eutectic equilibrium (eutectic). The composition within any system of two or more crystalline phases which melts completely at minimum temperature, or temperature at which such a composition melts. (ASTM C 242).
- Epoxy grout. A two-part grout system consisting of epoxy resin and epoxy hardener, especially formulated to have impervious qualities, stain, and chemical resistance, used to fill joints between tile units.
- Epoxy mortar. A two-part mortar system consisting of epoxy resin and epoxy hardener used to bond tile to back-up material where chemical resistance of high bond strength is a consideration.
- Epoxy resin. An epoxy composition used as a chemical-resistant setting adhesive or chemical-resistant grout.
- Equilibrium eutectic. See Eutectic, equilibrium.
- Eutectic. See Eutectic, deformation; Eutectic, equilibrium.
- Expansion joint. A joint through tile, mortar, and reinforcing wire down to the substrate.
- Exposed-aggregate finish. A decorative finish for concrete work achieved by removing, generally before the concrete has fully hardened, the outer skin of mortar and exposing the coarse aggregate.
- Extra duty tile. See Special purpose tile.
- Extruded tile. A tile or trim unit that is formed when plastic clay mixtures are forced through a pug mill opening (die) of suitable configuration, resulting in a continuous ribbon of formed clay. A wire cutter or similar cut-off device is then used to cut the ribbon into appropriate lengths and widths of tile. (TCA)
- Face-mounted tile. See under Tile, mounted.
- Facial defect. That portion of the facial surface of the tile which is readily observed to be nonconforming and which will detract from the aesthetic appearance or serviceability of the installed tile.
- Faience mosaics. Faience tile that are less than 6 in. in facial area, usually 5/16 to 3/8 in. (8 to 9.5 mm) thick, and usually mounted to facilitate installation. (ASTM C 242).
- Faience tile. Glazed or unglazed tile, generally made by the plastic process, showing characteristic variations in the face, edges, and glaze that give a handcrafted, nonmechanical, decorative effect. (ASTM C 242).
- Faience ware. Formerly a decorated earthenware with an opaque glaze, but currently designating a decorated earthenware having a transparent glaze (ASTM C 242).
- Fan or fanning. Spacing tile joints to widen certain areas so they will conform to a section that is not parallel.
- Fascia. A flat member or band at the surface of a building or the edge beam of a bridge; exposed eave of a building; often inappropriately called fascia.
- Feather edge. A wood or metal tool having a beveled edge; used to straighten re-entrant angles in finish plaster coat; also edge of a concrete or mortar placement such as a patch or topping that is beveled at an acute angle.
- Featheredging tile (mitering). The method of chipping away the body from beneath a facial edge of a tile in order to form a miter.
- Feature strip (decorated liner). A narrow strip of tile that has a contrasting color, texture, or design.
- Feldspar. A mineral aggregate consisting chiefly of microcline, albite and/or anorthite. (ASTM C 242).
- Field tile. An area of tile covering a wall or floor. The field is bordered by tile trim.
- Fiberglass. The name for products made of or with glass fibers ranging from 5 to 600 hundred-thousandths inch in diameter. Used for making textile fabrics, and for heat or sound insulation.
- Field tile. An area of tile covering a wall or floor. The field is bordered by tile trim.
- Fifty-fifty. See Spacing mix.
- Filler. See Spacing mix.
- Fineness modulus. A factor obtained by adding the total percentages by weight of an aggregate sample retained on each of a specified series of sieves, and dividing the sum by 100. In the United States the standard sieve sizes are No. 100 (150 pm), No. 30 (600 Wm), No. 16 (1.18 mm), No. 8 (2.36 mm) and No. 4 (4.75 mm), and 3/8 in. (9.5 mm), 3/4 in. (19 mm), 1 1/8 in. (38.1 mm), 3 in. (75 mm), and 6 in. (150 mm).

- Fifty-fifty.** See **Spacing mix.**
- Filler.** See **Spacing mix.**
- Final setting time.** The time required for a freshly mixed cement paste, mortar or concrete to achieve final set.
- Fire.** See **Fire, bisque; Fire, decorating; Fire, glost; Fire, single.**
- Fire, bisque.** The process of kiln-firing ceramic ware prior to glazing. (ASTM C 242).
- Fire clay.** An earthy or stony mineral aggregate which has as the essential constituent hydrous silicates of aluminum with or without free silica, plastic when sufficiently pulverized and wetted, rigid when subsequently dried, and of suitable refractoriness for use in commercial refractory products.
- Fire, decorating.** The process of firing ceramic or metallic decorations on the surface of glazed ceramic ware. (ASTM C 242).
- Fire, glost.** The process of kiln-firing bisque ware to which glaze has been applied. (ASTM C 242).
- Fire, single.** The process of maturing an unfired ceramic body and its glaze in one firing operation. (ASTM C 242).
- Firing.** The controlled heat treatment of ceramic ware in a kiln or furnace, during the process of manufacture, to develop the desired properties. (ASTM C 242).
- Firing range.** The range of firing temperature within which a ceramic composition develops properties which render it commercially useful. (ASTM C 242).
- Flaked.** Irregularities left on the edge of the tile mainly due to the use of machine cutting tools.
- Flammable.** Capable of being easily ignited.
- Flash point.** The temperature at which the material gives off flammable vapor in sufficient quantity to ignite momentarily on the application of a flame under specified conditions.
- Flat trowel.** The flat trowel is used in conjunction with the hawk for the transferring of mortar from the mortarboard to the wall or to other vertical surfaces. It is frequently used for spreading pure cement on the finished float coat. The flat trowel also is used for spreading mortar on floor surfaces before tiles are set.
- Flexural strength.** A property of a material or structural member that indicates its ability to resist failure in bending. (See also **Modulus of rupture.**)
- Float coat.** The final mortar coat over which the neat coat, pure coat, or skim coat is applied.
- Float strip.** A strip of wood about $\frac{1}{4}$ " thick and $1\frac{1}{4}$ " wide. It is used as a guide to align mortar surfaces.
- Floating.** A method of using a straightedge to align mortar with the float strips or screeds. This technique also is called **dragging, pulling, rodding, or rodding off.**
- Fluorite (Ca F₂) (fluorspar).** An inorganic mineral of the isometric form, used as a source of fluorine for fluxing of glasses, and glazes.
- Flux.** A substance that promotes fusion in a given ceramic mixture. (ASTM C 242).
- Fog curing.** 1. Storage of concrete in a moist room in which the desired high humidity is achieved by the atomization of fresh water. (See also **Moist room**). 2. Application of atomized fresh water to concrete, stucco, mortar, or plaster.
- Form oil.** Oil applied to interior surface of formwork to promote easy release from the concrete when forms are removed.
- Forming.** The shaping or molding of ceramic ware. (ASTM C 242).
- Forsterite porcelain.** A vitreous ceramic whiteware for technical application in which forsterite (2MgO SiO₂) is the essential crystalline phase. (ASTM C 242).
- Forsterite whiteware.** Any ceramic whiteware in which Forsterite (2MgO - SiO₂) is the essential crystalline phase. (ASTM C 242).
- Freehand floating.** The application of wall mortar without the use of guide screeds. This technique is used by specialists when they are setting glass mosaic murals.
- Frit.** A glass which contains fluxing material and is employed as a constituent in a glaze, body or other ceramic composition. (ASTM C 242).
- Fritted glaze.** A glaze in which a part or all of the fluxing constituents are prefluxed. (ASTM C 242).
- Frost proof tile.** Tile produced for use where freezing and thawing conditions occur. (CTI)
- Furan mortar.** A two-part mortar system of furan resin and furan hardener used for bonding tile to back-up material where chemical resistance of floors is important.
- Furan Plastics.** Plastics based on resins in which the furan ring is an integral part of the polymer chain, made by the polymerization or polycondensation of furfural, furfuryl alcohol, or other compounds containing a furan ring, or by the reaction of these furan compounds with other compounds, the furan being in greater amount by weight.
- Furan resin.** A furan resin composition used as a chemical-resistant setting adhesive or chemical-resistant grout.
- Furan resin grout.** A two-part grout system of furan resin and furan hardener used for filling joints between quarry tile and pavers where chemical resistant properties are required.
- Furring.** Stripping used to build out a surface such as a studded wall where strips of suitable size are added to the studs to accommodate vent pipes or other fixtures. (TCA)
- Fusion.** The process of melting; usually the result of interaction of two or more materials. (ASTM C 242).
- Gauging trowel.** The gauging trowel is larger than the pointing trowel but smaller than the buttering trowel. Tilesetters prefer the $3\frac{1}{4}$ " x 7" size.
- Gillmore needle.** A device used in determining time of setting of hydraulic cement.

- Glass mosaic tiles. Tiles made of glass, usually in sizes not over two (2) inches square and 1/4 inch thick, mounted on sheets of paper. Usually sheets are twelve (12) inches square.
- Glaze. A ceramic coating matured to the glassy state on a formed ceramic article. The term glaze also refers to the material or mixture from which the coating is made. (ASTM C 242).
- Bright glaze. A high-gloss coating with or without color. (ASTM C 242).
- Clear glaze. A transparent glaze with or without color. (ASTM C 242).
- Crystalline glaze. A glaze that contains microscopic crystals. (ASTM C 242).
- Fritted glaze. A glaze in which a part or all of the fluxing constituents are pre-fused. (ASTM C 242).
- Mat glaze. A low-gloss ceramic glaze with or without color. (ASTM C 242).
- Opaque glaze. A nontransparent glaze with or without color. (ASTM C 242).
- Raw glaze. A glaze compounded primarily from raw constituents. It contains no pre-fused materials. (ASTM C 242).
- Semimat glaze. A medium-gloss ceramic glaze with or without color. (ASTM C 242).
- Speckled glaze. A glaze containing granules of oxides or ceramic stains that are of contrasting colors. (TCA)
- Glaze fit. The stress relationship between the glaze and body of a fired ceramic product. (ASTM C 242).
- Grouting. Process of filling tile joints with grout (TCA)
- Glazed ceramic mosaic tile. Ceramic mosaic tile with glazed faces. (ASTM C 242).
- Glazed interior tile. A glazed tile with a body that is suitable for interior use and which is usually non-vitreous, and is not required or expected to withstand excessive impact or be subject to freezing and thawing conditions. (ASTM C -242).
- Glazed paver tile. See 'Pavers.
- Glazed quarry tile. See Quarry tile.
- Glazed tile. Tile with a fused impervious facial finish composed of ceramic materials, fused into the body of the tile which may be a nonvitreous, semivitreous, vitreous, or impervious body. The glazed surface may be clear, white, or colored. (ASTM C 242).
- Glazed tile, extra duty glaze. Tile with a durable glaze that is suitable for light duty floors and all other surfaces on interiors where there is no excessive abrasion or impact. (ASTM C 242).
- Glost fire. See Fire, glost.
- Grade. A predetermined degree of slope that a finished floor should have.
- Grout. A rich or strong cementitious or chemically setting mix used for filling tile joints. (TCA)
- Grout, colored. See Colored grout.
- Grout saw. The grout saw is a saw-toothed carbide steel blade mounted on a wooden handle. It is used to remove old grout. It also is used in patching work. Care should be used as it can easily damage adjacent tiles. The carbide steel blade is brittle, and it will shatter if it is dropped or abused. On front of the saw blade is a spring steel tip, used for scraping grout out of corners where the saw blade cannot reach.
- Grouting. Process of filling tile joints with grout. (TCA).
- Grout scrubbing pad. A nonscratch nylon pad impregnated with abrasive used for cleaning grout off tile.
- Hairline cracking. Small cracks of random pattern in an exposed concrete surface.
- Half and half. See Spacing mix.
- Hard screed. A mortar screed that has become firm.
- Hard Tile. A term used in the tile trade to designate types of tile, such as ceramic, glass mosaic, marble tile, etc., over which the tile trade has jurisdiction. Hard tile as compared to resilient tile.
- Hawk. Hawks range in size from 10" to 14" square, but tilesetters generally prefer the 11" square. Most hawks are made of aluminum with a wooden handle at the center. A rubber pad fits over the handle and covers that portion of the metal hawk that would come in contact with the hand. The hawk should not be held with a hand that is wet or covered with lime or mortar.
- Healipg power. The ability of a glaze to heal surface blemishes during firing. (ASTM C 242).
- Heavy duty tile. Tile suitable for areas where heavy pedestrian traffic is prevalent. Tile can be specified to meet higher test values as determined by job requirements but a minimum heavy duty tile test requirement is necessary.
- Hod. A portable trough for carrying mortar, bricks, etc., fixed crosswise on top of a pole and carried on the shoulder.
- Hollow casting. See Casting, drain.
- Hopped-up mud. Mortar mixed with an accelerator.
- Horizontal broken joints. A style of laying tile with each course offset one-half its length.
- Hot cement. Newly manufactured cement which has not had an opportunity to cool after burning and grinding of the component materials.
- Hot mud or hot stuff. Mortar mixed with an accelerator.
- Hot pressing. See Pressing, hot.
- Hydrate. A chemical combination of water with another compound or an element.
- Hydrated lime. Calcium hydroxide, a dry powder obtained by treating quicklime with water.
- Ilmenite. A mineral having the theoretical composition FeO Ti O₂ used principally in the production of titanium oxide. (ASTM C 21)
- Impervious. That degree of vitrification evidenced visually by complete resistance to dye penetration. (ASTM C 242).
- NOTE: The term impervious generally signifies zero absorption, except for floor and wall tile which are considered "impervious" up to 0.5 per cent water absorption.**
- Impervious tile. Has water absorption of 0.5 percent or less.
- Incised. Decorated by cutting or indenting the ware surface. (ASTM C 242).
- inglaze decoration. See Decoration, inglaze.

- Initial setting time.** The time required for a freshly mixed cement paste, mortar or concrete to achieve **initial set**. (See also Final setting time.)
- Ironstone ware.** (Stone china, white granite ware). Historic terms for a durable English earthenware. (ASTM C 242).
- Isolation joint.** A separation between adjoining parts of a concrete structure, usually a vertical plane, at a designed location such as to interfere least with performance of the structure, yet such as to allow relative movement and avoid formation of cracks elsewhere in the concrete and through which all or part of the bonded reinforcement is interrupted. (See also Contraction joint.)
- Jagged edges.** Irregularities left on the edges of the tile due to the use mainly of hand cutting tools.
- Jasper ware.** A vitreous, opaque, colored unglazed ceramic ware having white or contrasting relief-decorations and containing a substantial amount of barite. Originally developed by Josiah Wedgwood. (ASTM C 242).
- jiggering.** Forming ceramic ware from a plastic body by differential rotation of a profile tool and mold, the mold having the contour of one surface of the ware and the profile tool that of the other surface. (ASTM C 242).
- Jitterbug.** A grate tamper for pushing coarse aggregate slightly below the surface of a slab to facilitate finishing.
- Joint, control.** See Expansion joint.
- Joint, contraction.** See Contraction joint.
- Joint, expansion.** See Expansion joint.
- Joint filler.** Compressible material used to fill a joint to prevent the infiltration of debris and to provide support for sealants.
- Joint sealant.** Compressible material used to exclude water and solid foreign materials from joints.
- Jointer (concrete).** A metal tool about 6 in. (150 mm) long and from 2 to 4½ in. (50 to 100 mm) wide and having shallow, medium, or deep bits (cutting edges) ranging from ⅓ in. to ¾ in. (5 to 20 mm) or deeper used to cut a joint partly through fresh concrete.
- Journeyman.** An experienced reliable worker who has learned his trade and works for another person.
- Kaolin (china clay).** A refractory clay consisting essentially of minerals of the kaolin group and which fires to a white or nearly white color. (ASTM C 242).
- Keene's cement.** A cement composed of finely ground, anhydrous, calcined gypsum, the set of which is accelerated by the addition of other materials.
- Knockings.** The oversize residue obtained in screening a ceramic slip. (ASTM C 242).
- Kyanite (Al₂O₃ · SiO₂).** The most abundant of the mineral polymorphs that include andalusite and sillimanite. Kyanite is used as a source of mullite in ceramics. (ASTM C 21)
- L cut.** A piece of tile cut or shaped to the letter L.
- Laitance.** A layer of weak and nondurable material containing cement and fines from aggregates, brought by bleeding water to the top of overwet concrete; the amount of which is generally increased by overworking or overmanipulating concrete at the surface by improper finishing or by job traffic.
- Lap.** The length by which one bar or sheet of fabric reinforcement overlaps another.
- Latex.** A water emulsion of a synthetic rubber or plastic obtained by polymerization and used especially in coatings and adhesives.
- Latex-portland cement grout.** A portland cement grout with a special latex additive which results in a less rigid, less permeable grout than regular portland cement grout.
- Latex-portland cement mortar.** A mixture of portland cement, sand, and special latex additives which is used for bonding tile to back-up material. It is less rigid than portland cement mortar.
- Lath.** A wood strip or metal mesh, which acts as a background or reinforcing agent for the scratch coat or mortar coat. (TCA)
- Layout stick.** A long strip of wood marked at the appropriate joint intervals for the tile to be used. It is used to check the length, width, or height of the tilework. A common name for this item is idiot stick.
- Leadless glaze.** A ceramic coating matured to a glassy state on a formed article, or the material or the mixture from which the coating is made, to which no lead has been deliberately added. (ASTM C 21)
- NOTE: This does not imply that the glaze is nontoxic or that it contains no lead. Because of plant practices and conditions, a small percentage of lead, 0.1 to 0.2% (by dry weight), expressed as lead monoxide, may be present.
- Leg.** A tile wall running alongside a bathtub or abutment. This term sometimes is used to describe a narrow strip of tile floor.
- Leveling coat.** See Plumb scratch.
- Light duty tile.** Tile suitable for limited pedestrian traffic such as entryways in single family residences.
- Lime.** Specifically, calcium oxide (CaO); also, loosely, a general term for the various chemical and physical forms of quicklime, hydrated lime and hydraulic hydrated lime.
- Limestone.** A sedimentary carbonate rock, composed chiefly of calcite (CaCO₃), but sometimes containing appreciable dolomite. (ASTM C 21)
- Live load.** Any load that is not permanently applied to a structure.
- Load-bearing wall.** A wall designed and built to carry superimposed vertical and shear loads as opposed to nonload-bearing walls.
- Loss on ignition.** The percentage loss in weight of a sample ignited to constant weight at a specified temperature, usually 900-1000 C.
- Lugs.** See Self-spacing tile.
- Majolica.** Formerly an earthenware with an opaque luster glaze and overglaze colored decorations, but currently designating any decorated earthenware having an opaque glaze. (ASTM C 242).

- Marble mosaic tile.** Tile made of small marble tesserae that vary slightly in size, usually about one half inch square and mounted on sheets of paper to facilitate installation. (CTI)
- Marble tiles.** Marble cut into tile sizes twelve (12) inches square.-or less, usually $\frac{1}{2}$ inch to $\frac{3}{4}$ inch thick. Several types of finishes are made, polished, honed, split faced, etc.
- Masking power.** The ability of a fired glaze to mask visually the body on which it is applied. (ASTM C 242).
- Master Grade certificate.** A certificate that states tile listed in the shipment and described on the certificate are made in accordance with TCA 137.1-76.
- Mastic.** Organic file adhesive.
- Mastic grout.** A chemical mixture of organic and inorganic ingredients forming a one part grouting composition that is used directly from the manufacturer's container.
- Mat glaze.** A colorless or colored ceramic glaze having low gloss. (ASTM C 242).
- Maturing range.** The time-temperature range within which a ceramic body, glaze, or other composition may be fired to yield specified properties. (ASTM C 242-72)
- Medium duty tile.** Tile suitable for pedestrian traffic such as entryways in multiple dwellings and lobbies.
- Melt.** To change a solid into a liquid by the application of heat; or the liquid resulting from such action. (ASTM C 242).
- Metal quarry tile rack.** Metal quarry tile racks are available in many patterns, and they can be made to order for special patterns. They are used to maintain the same width between the quarry tiles.
- Mexican paver tile.** Terra cotta-like tile, used mainly for floors, and handmade. These tile vary in color, texture and appearance, from tile to tile and within each tile. They are available in squares up to 12 inches, hexagon, octagon, elongated hexagon, fleur de lis and other shapes. These tile are coated with various types of sealers because of their soft absorptive characteristics. The coatings provide a wearing surface on the pavers which would otherwise powder away under wear. (CTI)
- Mill scale.** The oxide layer formed during the hot rolling of metals, such as that formed on hot-rolled reinforcing bars.
- Mineral aggregate.** Aggregate consisting essentially of inorganic nonmetallic materials.
- Mix.** The act or process of mixing; also mixture of materials, such as mortar or concrete.
- Mixer.** A machine used for blending the constituents of concrete, grout, mortar, cement paste, or other mixture.
- Mixer, colloidal.** A mixer designed to produce colloidal grout.
- Mixer, horizontal shaft.** A mixer having a stationary cylindrical mixing compartment, with the axis of the cylinder horizontal, and one or more rotating horizontal shafts to which mixing blades or paddles are attached.
- Mixer, nontilting.** A horizontally rotating drum mixer that charges, mixes, and discharges without tilting.
- Mixer, open-top.** A truck-mounted mixer consisting of a trough or a segment of a cylindrical mixing compartment within which paddles or blades rotate about the horizontal axis of the trough. (See also Mixer, horizontal shaft.)
- Mixer, pan.** See Mixer, vertical shaft.
- Mixer plant.** See Batch plant.
- Mixer, tilting.** A rotating drum mixer that discharges by tilting the drum about a 'fixed or movable horizontal axis at right angles to the drum axis. The drum axis may be horizontal or inclined while charging and mixing.
- Mixer, vertical shaft.** A cylindrical or annular mixing compartment having an essentially level floor and containing one or more vertical rotating shafts to which blades or paddles are attached; the mixing compartment may be stationary or rotate about a vertical axis.
- Mixer efficiency.** The adequacy of a mixer in rendering a homogeneous product within a stated period; homogeneity is determinable by testing for relative differences in physical properties of samples extracted from different portions of a freshly mixed batch.
- Mixing cycle.** The time taken for a complete cycle in a batch mixer, i.e., the time elapsing between successive repetitions of the same operation (e.g., successive discharges of the mixer).
- Mixing speed.** Rotation rate of a mixer drum or of the paddles in an open-top, pan, or trough mixer, when mixing a batch; expressed in revolutions per minute (rpm), or in peripheral feet per minute of a point on the circumference at maximum diameter.
- Mixing time.** The period during which the constituents of a batch of concrete are mixed by- a mixer; for a stationary mixer, time is given in minutes from the completion of mixer charging until the beginning of discharge; for a truck mixer, time is given in good mixing in a specific mixing speed or expressed in terms of total revolutions at a specific mixing speed.
- Mixing water.** The water in freshly mixed sand-cement grout, mortar, or concrete, exclusive of any previously absorbed by the aggregate (e.g., water considered in the computation of the net water-cement ratio).
- Mixture.** The assembled, blended, co-mingled ingredients of mortar, concrete, or the like; or the proportions for their assembly.
- Modular ratio.** The ratio of modulus of elasticity of steel E, to that of concrete E, usually denoted by the symbol n.
- Modulus of deformation.** A concept of modulus of elasticity expressed as a function of two time variables; strain in loaded concrete as a function of the age at which the load is initially applied and of the length of time the load is sustained.

Modulus of elasticity. The ratio of normal stress to corresponding strain for tensile or compressive stresses below the proportional limit of the material; referred to as "elastic modulus of elasticity"; "Young's modulus," and "Young's modulus of elasticity"; denoted by the symbol E. (See also Modulus of rigidity.)

NOTE: Few materials conform to Hooke's law throughout the entire range of stress-strain relations; deviations therefrom are caused by inelastic behavior. If the deviations are significant, the slope of the tangent to the stress-strain curve at the origin, the slope of the tangent to the stress-strain curve at any given stress, the slope of the secant drawn from the origin to any specified point on the stress-strain curve, or the slope of the chord connecting any two specified points on the stress-strain curve, may be considered as the modulus; in such cases the modulus is designated, respectively, as the "initial tangent modulus," the "tangent modulus," the "secant modulus", or the "chord modulus", and the stress stated. The modulus is expressed as force per unit of area (e.g., psi or Pa).

Modulus of rigidity. The ratio of unit shearing stress to the corresponding unit shearing strain; referred to as "shear modulus" and "modulus of elasticity in shear"; denoted by the symbol G. (See also Modulus of elasticity.)

Modulus of rupture. A measure of the ultimate load-carrying capacity of a beam and sometimes referred to as "rupture modulus" or "rupture strength". It is calculated for apparent tensile stress in the extreme fiber of a transverse test specimen under the load which produces rupture. (See also Flexural strength.)

NOTE: The actual stress in the extreme fiber is less than the apparent stress since the flexure formula employed in the calculation is valid only for stresses within the proportional limit of the material; nevertheless, the nominal rupture strength so obtained is considered the rupture modulus.

Modulus of subgrade reaction. Ratio of load per unit area of horizontal surface (of a mass of soil) to corresponding settlement of the surface; it is determined as the slope of the secant, drawn between the point corresponding to zero settlement and a specified point on the load-settlement curve obtained from a plate load test on a soil using a 30 in. or greater diameter loading plate.

Moist room. A room in which the atmosphere is maintained at a selected temperature (usually 23.0 ± 1.7 C or 73.4 ± 3.0 F) and a relative humidity of at least 98 percent, for the purpose of curing and storing cementitious test specimen; the facilities must be sufficient to maintain free moisture continuously on the exterior of test specimens.

Moisture expansion. An increase in dimension or bulk volume of a ceramic article caused by reaction with water or water vapor. (ASTM C 242).

NOTE: This reaction may occur in time at atmospheric temperature and pressure, but is expedited by exposure of the article to water or water vapor at elevated temperatures and pressures.

Moisture movement. 1. The movement of moisture through a porous medium; 2. The effects of such movement on efflorescence and volume change in hardened cement paste, mortar, concrete, or rock.

Mold. 1. A divider containing a cavity into which neat cement, mortar, or concrete test specimens are cast; 2. A form used in the fabrication of precast mortar or concrete units (e.g., masonry units).

Mold oil. A mineral oil that is applied to the interior surface of a clean mold, before casting concrete or mortar

therein, to facilitate removal of the mold after the concrete or mortar has hardened. (See also Form oil, Bond breaker, and Release agent).

Moment. The colloquial expression for the more descriptive term bending moment.

Moment distribution. A method of structural analysis for continuous beams and rigid frames whereby successive converging corrections are made to an assumed set of moments until the desired precision is obtained; also known as the Hardy Cross method.

Monochrome decoration. A single color decoration. (ASTM C 242).

Monocottura (Single-Fired). A term used for tile manufactured by a process which allows the simultaneous firing of the clay with the glaze producing a finished tile with a single firing.

Monolith. A body of plain or reinforced concrete cast or erected as a single integral mass or structure.

Monolithic concrete. Concrete cast with no joints other than construction.

Monolithic terrazzo. The application of a s/s in. (15 mm) terrazzo topping directly to a specially prepared concrete substrata, eliminating an underbed.

Monolithic topping. On flatwork: a higher quality, more serviceable topping course placed promptly after the base course has lost all slump and bleeding water.

Monomer. An organic liquid, of relatively low molecular weight, that creates a solid polymer by reacting with itself or other compounds of low molecular weight or both.

Monomolecular. Composed of single molecules; specifically, films that are one molecule thick. Denotes a thickness equal to one molecule (e.g., certain chemical compounds develop a "monomolecular film" over bleeding water at the surface of freshly placed concrete or mortar as a means of reducing the rate of evaporation).

Montmorillonite. See Montmorillonoid.

Montmorillonoid. A group of clay minerals, including montmorillonite, characterized by a sheet-like internal molecular structure; consisting of extremely finely-divided hydrous aluminum or magnesium silicates that swell on wetting, shrink on drying, and are subject to ion exchange.

Mortar. A mixture of cement paste and fine aggregate; in fresh concrete, the material occupying the interstices among particles of coarse aggregate; in masonry construction, mortar may contain masonry cement, or may contain hydraulic cement with lime (and possibly other admixtures) to afford greater plasticity and workability than are attainable with standard hydraulic cement mortar. (See also Cement, masonry and Masonry mortar).

Mortarboard. The mortarboard is used as a table to hold mortar. It is usually 30" square.

Mortar hoe. The mortar hoe is used for hand-mixing mortar. The best type has a perforated blade and a handle about 66" in length. The hoe should be kept clean and free of all mortar so it can be pushed and pulled easily through a box of mortar.

Mortar mixer. Most mortar mixers are driven by gasoline combustion engines of 11/2, horsepower or greater, depending on the type of sack mix. Electrically driven mixers are used when small batches of mortar are needed. The quality of machine-mixed mortar far exceeds that of hand-mixed mortar.

Mortar pumping machine. The mortar pumping machine is used with the mortar mixer. Mixed mortar is poured into the hopper, and a pneumatic gun forces the mortar through a hose. The mortar can be delivered through the hose to tilesetters working as high as 13 stories above the street. Admixtures are added to the mortar as a bonder so that the mortar in the hose will not separate. The plastering gun can be used on the hose, or the hose can be used as a hoist.

Mosaics. Small tile or bits of tile, stone, or glass. These are used to form a surface design or an intricate pattern.

Mounted tile. Tile assembled into units or sheets by suitable material to facilitate handling and installation. Tile may be face-mounted, back-mounted or edge-mounted. Face-mounted tile assemblies may have paper or other suitable material applied to the face of each tile, usually by water soluble adhesives so that it can be easily removed after installation but prior to grouting of the joints. Back-mounted tile assemblies may have perforated paper, fiber mesh, resin or other suitable material bonded to the back and/or edges of each tile which becomes an integral part of the tile installation. Back-mounted and edge-mounted tile assemblies shall have a sufficient exposure of tile and joints surrounding each tile to comply with bond strength requirements.. Tile manufacturers must specify whether back-mounted and edge-mounted tile assemblies are suitable for installation in swimming pools, on exteriors and/or in wet areas.

Mud. A slang term for mortar.

Mullite. A rare mineral of theoretical composition $3Al_2O_3 \cdot 2SiO_2$, a relatively stable phase in ceramics produced by the high temperature reaction of alumina and silica or by the thermal decomposition of alumina-silica minerals such as kyanite, sillimanite, andalusite, and various clay minerals. (ASTM C 21).

Mullite porcelain. A vitreous ceramic whiteware for technical application in which mullite ($3Al_2O_3 \cdot 2SiO_2$) is the essential crystalline phase. (ASTM C 242-72)

Mullite whiteware. Any ceramic whiteware in which mullite ($3Al_2O_3 \cdot 2SiO_2$) is the essential crystalline phase. (ASTM C 242).

Murals. Tile installed in a precise area of a wall or floor to provide a decorative design or picture. Glass or marble mosaic tile (tesserae) made to form a picture or design. Ceramic tile, painted and fired to form a picture or design. See Decorated and Decoration.

Muriatic acid. Hydrochloric acid (30% HCL), commercial grade.

Nailable concrete. Concrete, usually made with a suitable lightweight aggregate, with or without the addition of sawdust, into which nails can be driven.

Natural clay tile. A tile made by either the dust-pressed method or the plastic method, from clays that produce a dense body having a distinctive, slightly textured appearance. (ASTM C 242).

Neat cement. Hydraulic cement in the unhydrated state.

Neat cement grout. A fluid mixture of hydraulic cement and water, with or without admixture; also the hardened equivalent of such mixture.

Neat cement paste. A mixture of hydraulic cement and water, both before and after setting and hardening.

Neoprene. A type of synthetic rubber with outstanding oil resistance. Can be used for quick-setting, high strength adhesives.

Nepheline syenite. A mineral aggregate consisting chiefly of albite, microcline, and nephelite, each in significant amount. (ASTM C 242).

Nominal sizes. This is the approximate facial size or thickness of tile, expressed in inches or fractions of an inch, for general reference.

Non-slip tile. Tile having greater non-slip characteristics due to an abrasive admixture, abrasive particles in the surface, grooves or patterns in the surface or because of natural non-skid surface characteristics.

Nonvitreous (nonvitrified). That degree of vitrification evidenced by relatively high water absorption. (ASTM C 242).

NOTE: The term nonvitreous generally signifies more than 11.0 per cent water absorption, except for floor and wall tile which are considered nonvitreous when water absorption exceeds seven per cent.

Notched trowels. Notched trowels are available in the serrated and square-tooth design. The teeth are made in various sizes. The correct tooth size and depth must be used to apply the thickness of bonding mortar specified. These trowels are used to apply all of the various kinds of bonding materials for ceramic tile. When the teeth become worn, the trowel has to be resharpened or replaced.

Opaque glaze. A nontransparent colored or colorless glaze. (ASTM C 242).

Open time. The period of time during which the bond coat retains its ability to adhere to the tile and bond the tile to the substrate.

Orangepeel. A pitted texture of a fired glaze resembling the surface of rough orange peel. (ASTM C 242)

Organic adhesive. A prepared organic material, ready to use with no further addition of liquid or powder, used for bonding tile to back-up material by the thin-set method. Cures or sets by evaporation.

Oven ware. Ceramic whiteware for culinary oven use. (ASTM C 242).

Overglaze decoration. See Decoration, overglaze.

Packing house tile. Similar to quarry tile but usually of greater thickness.

GLOSSARY (Cont)

Paper and wire. Tar paper and wire mesh (or metal lath) that are used as a backing for the installation of tile.

Paper mounted ceramic mosaics. Ceramic mosaic tiles mounted on paper. Paper is applied to face of tile in sheets approximately twelve (12) inches wide, twenty-four (a-1) inches long.

Pate dure (hard paste). A French term designating ceramic whitewares fired at relatively high temperatures. (ASTM C 242).

Pate tendre (soft paste). A French term designating ceramic whitewares fired at relatively low temperatures. (ASTM C 242).

Pavers. Unglazed porcelain or natural clay tile formed by the dust-pressed method and similar to ceramic mosaics in composition and physical properties but relatively thicker with 6 in.- or more of facial area. (ASTM C 242).

Peeling. See Orangepeel; Shivering.

Pencil rod. Reinforcing steel rod with a diameter of 'A'.

Petalite. A lithium mineral of theoretical composition $Li_2O \cdot Al_2O_3 \cdot 8SiO_2$ which transforms on heating to a beta spodumene-silica solid solution product of very low or nil thermal expansion.

pH. A simplified system of measuring acidity or alkalinity irrespective of the acid or alkali involved; in which neutrality is 7.0, e.g., Mineral Acid Solution is 1.0-2.8, Acetic Acid Solution or Citric Acid Solution is 3.0-4.0, Ammonia is 9.0, Lime Water is 12.0.

Physical properties of ceramic tile. -[]lose properties as measured by ASTM tests.

Pinholes. Imperfections in the surface of a ceramic body or glaze resembling pin pricks. (ASTM C 242).

Pitted. Indentations in the finished surface of individual tiles other than at the corners and edges. These are caused by sharp corners on trowels and other tools of the workmen and are different than manufacturing defects.

Pitting. Development of relatively small cavities in a surface, due to phenomena such as corrosion or cavitation, or, in concrete, localized disintegration. (See also Popout.)

PLI. Pounds per lineal inch.

Plaster. A cementitious material or combination of cementitious material and aggregate that, when mixed with a suitable amount of water, forms a plastic mass or paste which when applied to a surface, adheres to it and subsequently hardens, preserving in a rigid state the form or texture imposed during the period of plasticity; also the placed and hardened mixture. (See also Stucco.)

Plastic cracking. Cracking that occurs in the surface of fresh concrete soon after it is placed and while it is still plastic.

Plastic flow. See Creep.

Plastic pressing. See Pressing, wet.

Plasticity. A complex property of a material involving a combination of qualities of mobility and magnitude of

yield value; that property of freshly mixed cement paste concrete, or mortar which determines its resistance deformation or ease of molding.

Plasticizer. A material that increases plasticity of a cement paste, mortar, or concrete mixture.

Plumb. Perpendicular to a true level.

Plumb - scratch. An additional scratch coat that has been applied to obtain a uniform setting bed on a plumb vertical plane.

Pointing mix. Mortar with a consistency of stiff paste. The mix is forcibly compressed into the tile joints where it hardens.

Pointing trowel. The pointing trowel or pointer is probably the most essential tool in the trade. It comes in sizes ranging from 4" to 7" in length, but the 6" trowel is the most popular. The tilesetter uses this trowel in every phase of the work, especially for straightening tiles on walls and floors, marking floated surfaces, filling small depressions on float coats, buttering tiles and trim work, and placing mortar in areas that are too small for the flat trowel. The butt of the handle is used for tapping in tiles that are not on a true plane with the rest of the tilework. The trowel's flat working surface must be protected. The tilesetter should not use it to pry or chop hardened materials such as concrete or plaster.

Poisson's ratio. The ratio of transverse (lateral) strain to the corresponding axial (longitudinal) strain resulting from uniformly distributed axial stress below the proportional limit of the material; the value will average about 0.2 for concrete and 0.25 for most metals.

Polyethylene. A thermoplastic high-molecular-weight organic compound used in formulating protective coatings or, in sheet form, as a protective cover for concrete surfaces during the curing period, or to provide a temporary enclosure for construction operations.

Polychrome decoration. A multicolor decoration. (ASTM C 242).

Popout. The breaking away of small portions of a concrete surface due to internal pressure which leaves a shallow, typically conical, depression.

Porcelain. A glazed or unglazed vitreous ceramic white-ware used for technical purposes. This term designates such products as electrical, chemical, mechanical, structural, and thermal wares when they are vitreous. (See also, Alumina porcelain; Cordierite porcelain; Forsterite porcelain; Steatite porcelain; Titania porcelain; and Zircon porcelain.) (ASTM C 242).

Porcelain process. The method of producing glazed ware by which a ceramic body and glaze are matured together in the same firing operation. (ASTM C 242).

Porcelain tile. A ceramic mosaic tile or paver that is generally made by the dust-pressed method, of a composition resulting in a tile that is dense, fine-grained, and smooth with sharply formed face, usually impervious. Colors of the porcelain type are usually of a clear, luminous type or granular blend thereof. (ASTM C 242).

- Porosity, apparent.** The relationship of the open pore space to the bulk volume, expressed in percent. (ASTM C 242).
- Post-tensioning.** A method of prestressing reinforced concrete in which tendons are tensioned after the concrete has hardened.
- Pot life.** The period of time during which a material maintains its workable properties after it has been mixed.
- Pottery.** All fired ceramic wares that contain clay when formed, except technical, structural and refractory products. (ASTM C 242).
- Pozzolan.** A siliceous or siliceous and aluminous material, which in itself possesses little or no cementitious value but will, in finely divided form and in the presence of moisture, chemically react with calcium hydroxide at ordinary temperatures to form compounds possessing cementitious properties.
- Precast.** A concrete member that is cast and cured in other than its final position; the process of placing and finishing precast concrete.
- Precast concrete.** Concrete cast elsewhere than its final position.
- Prefloat.** The term used to describe mortar that has been placed and allowed to harden prior to bonding tile to it with thin-set materials.
- PregROUTED tile.** A surface unit consisting of an assembly of ceramic tile bonded together at their edges by a material, generally elastomeric, which seals the joints completely. Such material (grout) may fill the joint completely, or partially and may cover all, a portion or none of the back surfaces of the tiles in the sheets. The perimeter of these factory pregROUTED sheets may include the entire, or part of the joint between the sheets or none at all. The term **edge-bonded tile** is sometimes used to designate a particular type of pregROUTED tile sheets having the front and back surfaces completely exposed.
- Pressing.** See Pressing, dry; Pressing, hot; Pressing, wet.
- Pressing, dry.** Forming ceramic ware in dies from powdered or granular material by direct pressure. (ASTM C 242).
- Pressing, hot.** A jiggering process wherein a heated profile tool or plunger is employed. (ASTM C 242-72)
- Pressing, wet (plastic pressing).** Forming ceramic ware in dies from a plastic body by direct pressure. (ASTM C 242).
- Prestressed concrete.** Concrete in which internal stresses of such magnitude and distribution are introduced that the tensile stresses resulting from the service loads are counteracted to a desired degree; in reinforced concrete the prestress is commonly introduced by tensioning the tendons.
- Pretensioning.** A method of prestressing reinforced concrete in which the tendons are tensioned before the concrete has hardened.
- Primary clay (residual clay).** A clay which remains geologically at its site of formation. (ASTM C 242).
- Process.** See Process, dry; Process, wet.
- Process, dry (dry mix).** The method of preparation of a ceramic body wherein the constituents are blended dry, following which liquid may be added as required for subsequent processing. (ASTM C 242).
- Process, wet (slip process).** The method of preparation of a ceramic body wherein the constituents are blended in sufficient liquid to produce a fluid suspension for use as such or for subsequent processing. (ASTM C 242).
- P.S.I. or psi.** Pounds per square inch, a unit measure of pressure.
- Pumice.** A highly porous and vesicular lava usually of relatively high silica content composed largely of glass drawn into approximately parallel or loosely entwined fibers, which themselves contain sealed vesicles.
- Pumped concrete.** Concrete which is transported through hose or pipe by means of a pump.
- Pure.** See Neat cement.
- Pure coat.** A thin coat of pure portland cement which is used to bond tile to mortar.
- Pyrophyllite.** A hydrated aluminum silicate mineral of the theoretical composition $Al_2O_3 \cdot 4SiO_2 \cdot H_2O$, having physical properties in the raw state resembling mineral talc. (ASTM C 21)
- Quality assurance.** A system of procedures for selecting the levels of quality required for a project or portion thereof to perform the functions intended, and assuring that these levels are obtained.
- Quality control.** A system of procedures and standards by which a constructor, product manufacturer, materials processor, or the like, monitors the properties of the finished work.
- Quarry tile.** Unglazed tile, usually 6 in. 2 or more in surface area and $\frac{1}{2}$ to $\frac{3}{4}$ in. (13 to 19 mm) in thickness, made by the extrusion process from natural clay or shales. (ASTM C 242).
- Quartering.** A method of obtaining a representative sample by dividing a circular pile of a larger sample into four equal parts and discarding opposite quarters successively until the desired size of sample is obtained.
- Quicklime.** Calcium oxide (CaO). (See also Lime.)
- Rack.** A metal grid that is used to properly space and align floor tiles.
- Ragging Off.** The procedure of spreading damp cheese cloth and pulling it over the tile surface during the tile grouting process in order to clean the tile.
- Raked joint.** A joint in a masonry wall which has the mortar raked out to a specified depth while it is only slightly hardened.
- Rake or rake line.** The inclination from a horizontal direction.

- Raw glaze.** A glaze compounded primarily from raw constituents, that is, containing no prefused materials. (*ASTM C 242*).
- Receptor.** A metallic or nonmetallic waterproof support for a shower stall. (TCA)
- Reducer.** A trim unit used to reduce the radius of a bullnose or a cove to another radius or to a square. (TCA)
- Refractory concrete.** Concrete having refractory properties, and suitable for use at high temperatures (generally about 315 to 1315 C), in which the binding agent is a hydraulic cement.
- Reinforced concrete.** Concrete containing adequate reinforcement (prestressed or not prestressed) and designed on the assumption that the two materials act together in resisting forces.
- Reinforced masonry.** Unit masonry in which reinforcement is embedded in such a manner that the two materials act together in resisting forces.
- Reinforcement, mesh.** See Welded-wire fabric and Welded-wire fabric reinforcement.
- Relative humidity.** The ratio of the quantity of water vapor actually present to amount present in a saturated atmosphere at a given temperature; expressed as a percentage.
- Release agent.** Material used to prevent bonding of concrete to a surface. (See also Bond breaker.)
- Return.** The ending of a small splash wall or a wainscot at right angle to the major wall.
- Rockingham ware.** A semivitreous ware or earthenware having a brown or mottled brown bright glaze. Originated in England on the estate of the Marquis of Rockingham. (*ASTM C 242*).
- Rodding.** See Floating.
- Rod saw.** The rod saw is one of the newest tools used in the cutting of tile. It is a steel rod approximately 1/8" in diameter. The rod has tungsten carbide particles embedded in the surface. The rod saw is used to cut circles or irregular curves in tile.
- Roughing in.** The act of preparing a surface by applying tar paper and metal lath (or wire mesh). Sometimes called wiring.
- Rubber spacers.** Cross and tee-shaped objects used to space tile on floors or walls. They are manufactured in thicknesses of 1/16", 1/8", 1/4", 3/8", and 1/2".
- Rubber trowel.** The rubber trowel used for grouting is a non-porous synthetic-rubber-faced float that is mounted on an aluminum back with a wood handle. This trowel is used to force material deep into tile joints and to remove excess material for a perfect finish.
- Rubbing stone.** A Carborundum stone that is used to smooth the rough edges of tile.
- Rutile.** A mineral form of titanium oxide (TiO₂) (tetragonal crystallization), but usually produced chemically for use in ceramics and other products. (*ASTM C 21*)
- Sag.** A term used when a wall surface has developed a slide.
- Salt glaze.** A glaze produced by the reaction, at elevated temperature, between the ceramic body surface and salt fumes produced in the kiln atmosphere. (*ASTM C 242*).
- Sampling.** The method of obtaining tile for testing from an agreed-upon lot.
- Sandblasting.** A method of scarifying the surface of concrete or masonry to provide a bondable surface. Compressed air is used to propel a stream of wet or dry sand onto the surface.
- Sand holes.** Tiny pits in the surface of the tile.
- Sandblast.** A system of cutting or abrading a surface such as concrete by a stream of sand ejected from a nozzle at high speed by compressed air; often used for cleanup of horizontal construction joints or for exposure of aggregate in architectural concrete.
- Sander-grinder (Cutting tool).** In addition to sander and grinder attachment both uninstalled and installed tile. The cutting is done dry.
- Salamander.** A portable source of heat, customarily oil-burning, used to heat an enclosure around or over newly placed concrete to prevent the concrete from freezing.
- Saw cut.** A cut in hardened concrete utilizing diamond or silicone-carbide blades or discs.
- Sawed joint.** A joint cut in hardened concrete, generally not to the full depth of the member, by means of special equipment.
- Scaffolding.** A temporary structure for the support of deck forms, cartways, or workmen, or a combination of these such as an elevated platform for supporting workmen, tools, and materials; adjustable metal scaffolding is frequently adapted for shoring in concrete work.
- Scarifier.** A piece of thin sheet metal with teeth or serrations cut in the edge. It is used to roughen fresh mortar surfaces to achieve a good bond for the tile. A scarifier also can be used to roughen the surface of concrete. (TCA)
- Scarred faces.** Surface blemishes caused by scraping or other marring of the tile.
- Scratch.** A mixture of portland cement, sand, and water.
- Scratch coat.** The first coat of plaster or stucco applied to a surface in three-coat work; usually cross-raked or scratched to form a mechanical key with the brown coat.
- Scratched.** Tiles that have surface scratches (usually glazed wall tile) caused from sand, tools or rough handling.
- Scratcher.** Any serrated or sharply tined object that is used to roughen the surface of one coat of mortar to provide a mechanical key for the next coat. See also Scarifier.
- Scratching.** The application of a scratch coat and its combing with a scratcher.
- Screed.** To strike off mortar laying above the desired plane or shape.
- Screed guide.** Firmly established grade strips or side forms for unformed concrete which will guide the strikeoff in producing the desired plane or shape.

- Sculptured tile.** Tile with a decorative design of high and low areas molded into the finished face. (CTI)
- Sealant.** An elastomeric material that is used to fill and seal the expansion joint. This material prevents the passage of moisture and allows horizontal and lateral movement at the expansion joint.
- Sealing compound.** See Joint sealant.
- Secondary clay (sedimentary clay).** A clay which has been geologically transported from its place of formation. (ASTM C 242).
- Second grade ceramic tile.** Ceramic tile with appearance defects not affecting wearing or sanitary qualities.
- Self-furring.** Metal lath or welded wire fabric formed in the manufacturing process to include means by which the material is held away from the supporting surface, thus creating a space for "keying" of the insulating concrete, plaster, or stucco.
- Self-spacing tile.** Tile with lugs, spacers, or protuberances on the sides. These devices automatically space the tile for the grout joints. (SS-T-308b)
- Semi-mat glaze.** A colorless or colored glaze having moderate gloss. (ASTM C 242).
- Semi-porcelain.** A trade term designating semivitreous dinnerware. (ASTM C 242).
- Semi-vitreous.** -3 percent to 7 percent water absorption.
- Set.** The condition reached by a cement paste, mortar, or concrete when it has lost plasticity to an arbitrary degree, usually measured in terms of resistance to penetration or deformation; initial set refers to first stiffening; final set refers to attainment of significant rigidity; also, strain remaining after removal of stress.
- Setting bed.** The layer of mortar on which the tile is set. Tile final coat of mortar on a wall or ceiling - also may be called a setting bed. (TCA)
- Setting time.** See Initial setting time and Final setting time.
- Shade.** The gradation of color.
- Sharp sand.** Coarse sand of which the particles are of angular shape.
- Shearwall.** A wall portion of a structural frame intended to resist lateral forces, such as earthquake, wind, and blast, acting in or parallel to the plane of the wall.
- Shelf life.** Maximum interval during which a material may be stored and remain in a usable condition.
- Ship and galley tile.** A special quarry tile having an indented pattern on the face of the tile to produce an antislip effect. (ASTM C 242).
- Shivering (peeling).** The splintering which occurs in fired glazes or other ceramic coatings due to critical compressive stress. (ASTM C 242).
- Shore A hardness.** The reading of a material's hardness on a durometer, the scale of which is 0-100, used on elastomers as polyacrylic esters and natural rubber. Consists of a pinpoint depression into the material, the material being at least 100 mils thick. A Shore A reading of 80 equals a Shore D reading of 30.
- Shore D hardness.** The reading of a material's hardness on a durometer similar to the Shore A durometer, the scale of which is 0-100, used on rigid and semi-rigid materials such as polystyrene. Consists of a pinpoint depression into the material. Both the Shore A and Shore D instruments are made by the Shore Instrument Manufacturing Company, Inc., Jamaica, New York.
- Shower floor waterproof membrane.** See Waterproof membrane.
- Shower pan.** Terminology used in some areas for Waterproof membrane. (CTI)
- Shower receptor.** The floor and side walls of the shower up to and including the curb of the shower. (CTI)
- Shower receptor liner or lining.** Terminology used in some areas for Waterproof membrane. (CTI)
- Shrinkage.** The decrease in volume, or contraction, of a material by the escape of any volatile substance, or by a chemical or physical change in the material.
- Shrinkage crack.** Crack due to restraint of shrinkage.
- Shrinkage cracking.** Cracking of a structure or member due to failure in tension caused by external or internal restraints as reduction in moisture content develops, or as carbonation occurs, or both.
- Silica (SiO₂).** The common oxide of silicon usually found naturally as quartz or in complex combination with other elements as silicates. Various polymorphs and natural occurrences of silica include cristobalite, tridymite, cryptocrystalline chert, flint, chalcedony, and hydrated opal.
- Skid resistance.** A measure of the frictional characteristics of a surface.
- Skim coat.** See Bond coat.
- Slide.** A fresh tile wall that has buckled or sagged. This condition may be caused by excessive mortar, insufficient lime in the mortar, or excessive moisture in the scratch coat. A slide also may result if the surface is slick or the mortar is too soft.
- Slip coating.** A ceramic material or mixture other than a glaze, applied to a ceramic body and fired to the maturity required to develop specified characteristics. (ASTM C 242).
- Slip glaze.** A glaze consisting primarily of a readily fusible clay or silt. (ASTM C 242).
- Slip process.** See Process, wet.
- Slip-resistant tile.** Tile having greater slip-resistant characteristics due to an abrasive admixture, abrasive particles in the surface or grooves or patterns in the surface.
- Slip (slurry).** A suspension of ceramic material in liquid. (ASTM C 242).
- Slot cut.** Description of a tile that has been cut to fit around pipes or switch boxes. This tile is usually in the shape of the letter H or the letter L.
- Slump.** A measure of consistency of freshly mixed concrete, mortar, or stucco equal to the subsidence measured.
- Slump cone.** A mold in the form of the lateral surface of the frustum of a cone with a base diameter of 8 in. (203 mm), top diameter 4 in. (102 mm), and height 12 in. (305 mm), used to fabricate a specimen of freshly mixed concrete for the slump test; a cone 6 in. (152 mm) high is used for tests of freshly mixed mortar and stucco.

- Slump test.** The procedure for measuring slump.
- Slurry.** A mixture of water and any finely divided insoluble material, such as portland cement, slag, or clay in suspension.
- Slush coat.** A pure coat of a very soft consistency. This also is called a slurry coat.
- Smelt (noun).** A specific batch or lot of frit. (verb). The act of melting a batch of frit. (ASTM C 21).
- Smelter.** A furnace in which the raw materials of a frit batch are melted. (ASTM C 21)
- Soaping tile.** The method of applying a soapy film to newly tiled walls to protect them from paint and plaster during construction. (TCA)
- Soflit.** The underside of a part or member of a structure, such as a beam, stairway, or arch.
- Soil.** A generic term for unconsolidated natural surface material above bedrock.
- Soldier course.** Oblong tile laid with the long side vertical and all joints in alignment.
- Solids.** The dry ingredients remaining after evaporation of all volatile solvent or water. Not a fluid and not flowable.
- Solid casting.** See Casting, solid.
- Soluble (adj.).** Describes the property of a substance to dissolve in another and form a solution, e.g., sugar is soluble in water.
- Solution.** The process by which a substance (solid, liquid, or gas) is homogeneously mixed with a liquid, called the solvent, and the mixture being incapable of mechanical separation into its components. Alloys and amalgams are solutions of metals in metal; brines are solutions of a salt in water; syrups are solutions of sugars in water. Solution should not be confused or used interchangeably with such terms as dispersion, suspension or emulsion.
- Solvent.** In a solution, that substance which dissolves another is called the solvent. Solvent is also a common term for many liquids which are commonly used in making solutions, e.g., organic solvents, petroleum solvents, etc. Also used for thinning down a fluid, and for cleaning purposes.
- Spacers.** T-shaped and Y-shaped, they are used in installation to separate tile on walls and floors. They are manufactured in various thicknesses from $\frac{1}{8}$ " to $\frac{1}{2}$ ".
- Spacing; mix.** A dry or dampened mixture of one part Portland cement and one part extra-fine sand. This mix is used as a filler in the joints of mounted ceramic mosaic tiles to keep them evenly spaced during installation.
- Spall.** A fragment, usually in the shape of a flake, detached from a larger mass by a blow, by the action of weather, by pressure, or by expansion within the larger mass.
- Spandrel.** That part of a wall between the head of a window and the soil of the window above it.
- Specific gravity.** The ratio of the weight of any volume of a mass or substance to the weight of an equal volume of water at a given temperature. The specific gravity of a substance times the density of water equals the density of the substance.
- Special-purpose tile.** A tile, either glazed or unglazed, made to meet or to have specific physical design or appearance characteristics such as size, thickness, shape, color, or decoration; keys or lugs on backs or sides; special resistance to staining, frost, alkalies, acids, thermal shock, physical impact, high coefficient of friction, or electrical properties. (ASTM C 242).
- Specific gravity.** The ratio of the weight of any volume of a mass or substance to the weight of an equal volume of water at a given temperature. The specific gravity of a substance times the density of water equals the density of the substance.
- Specks.** Any dark dots on the tile less than $\frac{1}{64}$ inch in diameter, and noticeable at a distance of more than three feet.
- Spitout.** A glaze defect of the pinhole type developed in the decorating kiln, due to evolution of minute gas bubbles from body or glaze. (ASTM C 242).
- Splash walls.** The walls of a tile drainboard or bathtub.
- Split L cut.** An improper L cut that is made by splitting a tile instead of cutting it.
- Spodumene (alpha spodumene).** A lithium mineral of the theoretical composition $\text{Li}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 4\text{SiO}_2$ (monoclinic crystallization) which on heating inverts to beta spodumene, a form having very low nil thermal expansion. (ASTM C 21)
- Spots.** Any dark dots on the face of the tile more than $\frac{1}{64}$ inch in diameter.
- Spread, noun.** The quantity of adhesive per unit area applied to an adherent, usually expressed in pounds of adhesive per thousand square feet of area. (1) Single Spread refers to application of adhesive to only one adherent. (2) Double Spread refers to application of adhesive to both adherents.
- Stability.** The ability to remain unchanged; equilibrium, steady, constant. Ability to restore to original condition after being disturbed by some force.
- Stacking tile.** A method of installation whereby glazed tiles are placed on the wall so that they are in direct contact with the adjacent tiles. The width of the joints is not maintained by the use of string or other arlcans. The tiles may be set with either straight or broken joints. (TCA)
- Staining.** Discoloration caused by a foreign matter chemically affecting the material itself.
- Standard grade ceramic tile.** Highest grade of all types of ceramic tile.
- Steam curing.** Curing of concrete or mortar in water vapor at atmospheric or higher pressures and at temperatures between about 100 and 420 F (40 and 215 C). (See also Autoclave curing).

- Steatite porcelain.** A vitreous ceramic whiteware for technical application in which magnesium metasilicate (MgO - SiO₂) is the essential crystalline phase. (ASTM C 242).
- Steatite tale.** Massive talc or the pulverized product thereof having the general formula 3 MgO - 4SiO₂ - H₂O. (ASTM C 242).
- Steatite whiteware.** Any ceramic whiteware in which magnesium metasilicate (MgO - SiO₂) is the essential crystalline phase. (ASTM C 242).
- Steel square.** The steel square is one of the most important tiling tools. The large arm of the square is 2" wide and 24" long and is called the body or blade. The smaller arm is at a 90-degree angle to the blade and is 1 1/2" wide and 16" long; it is called the tongue. The point where the outside edges of the blade and tongue join is called the heel. The surface with the manufacturer's name is called the face; the opposite surface is called the back.
- Stoned.** Use of a Carborundum stone to eliminate the jagged and flaked edges, due to cutting.
- Stoneware.** A vitreous or semivitreous ceramic ware of fine texture, made primarily from nonrefractory fire clay. (ASTM C 242).
- Storage life.** In the period of time during which a packaged adhesive can be stored under specified temperature conditions and remain suitable for use. Sometimes called "shelf life".
- Story pole.** See Layout stick.
- Straight joint.** The usual style of laying tile where all the joints [are in](#) alignment.
- Straightedge.** A straight piece of lumber that is used to rod mortar and to align tile.
- Stretcher.** A masonry unit laid with its length horizontal and parallel with the face of a wall or other masonry member.
- Striking joints.** A process of removing excess grout from the joints by wiping with a sponge or cloth or scraping with a curved instrument. (TCA)
- Structural defects.** Cracks or laminations in the body of the tile which detract from the aesthetic appearances and/or the structural soundness of the tile installation.
- Substrate.** The underlying support for the ceramic tile installation.
- Stucco.** A cement plaster used for coating exterior walls and other exterior surfaces of buildings. (See also Plaster.)
- Stud.** Vertical member of appropriate size (2x4 to 4x10 in.) (50x100 to 100x250 mm) and spacing (16 to 30 in.) (400 to 750 mm) to support sheathing of concrete forms; also a headed steel device used to anchor steel plates or shapes to concrete members.
- Taber Abrader.** An instrument used to test the abrasion resistance of a material.
- Tableware.** All utensils and decorative articles used on the table for meal service. (ASTM C 242).
- Take-off man.** Someone who can read blueprints and is familiar with the specifications. This person makes tracings of special details concerning the tilework after gathering the necessary information and then estimates the labor, materials, tile quantities, and special trim shapes needed to complete the job.
- Tapping tile.** An inspection technique whereby a coin, key, or other small metallic object is tapped against an installed tile to determine by sound whether the tile is completely bonded to its backing. Tilers often tap the tile with a pointing trowel to determine that a good bond has been achieved. (TCA)
- Tensile strength.** The pulling force necessary to break a given specimen divided by the cross sectional area. Units given in lbs/in² (P.S.I.). It measures the resistance of a material to stretching without rupture. Normally is not used with reference to elastic materials which recover after elongation.
- Terra cotta.** Hard baked clayware, including tile, of variable color, averaging; reddish red-yellow in hue and of high saturation. (CTI)
- Terra sigillata.** A porous, red clay ware characterized by embossed decorations of the same color and a satin-like unglazed surface. Originated on the Island of Samos. (ASTM C 242).
- Terrazzo concrete.** See Concrete, terrazzo.
- Terrazzo tile.** A terrazzo surface, on a portland cement and sand body, made by a mixture of marble chips and portland cement and usually ground smooth. (CTI)
- Tessera, tesserae.** A small chip of glass or marble used in mosaic formations. (CTI)
- Test.** A trial, examination, observation, or evaluation used as a means of measuring a physical or chemical characteristics of a material, or a physical characteristic of a structural element or a structure.
- Testing of ceramic tile.** The act of determining whether ceramic tile are acceptable. See Physical properties of ceramic tile.
- Testing machine.** A device for applying test conditions and accurately measuring results.
- Thermal conductivity.** Ability of a material to conduct heat; physical constant for quantity of heat that passes through unit volume of a substance in unit of time when difference in temperature of two opposite faces is one degree.
- Thin-set.** A term used to describe the bonding of tile with suitable materials applied approximately 1/8" thick. See also Dry-Set mortar.
- Tie wire.** The 18-gauge galvanized wire used in construction work.
- Tile.** A ceramic surfacing unit, usually relatively thin in relation to facial area, made from clay or a mixture of clay and other ceramic materials, called the body of the tile, having either a glazed or unglazed face and fired above red heat in the course of manufacture to a temperature sufficiently high to produce specific physical properties and characteristics. (ASTM C 242).
- Tile assemblies.** See definition for Mounted tile.

Tile cutter. The tile cutter is one of the most efficient and economical tools in the tilesetting trade. A popular model is the hand-drawn tile cutting board that is adjustable.

Tile, mounted. Tile assembled into units or sheets and bonded together to facilitate handling. (TCA)

Back-mounted tile. Mounted tile with perforated paper, fiber mesh, or other suitable bonding material applied to the backs or edges of the tile so that a relatively large proportion of tile area is exposed to the setting bed.

Face-mounted tile. Mounted tile with paper applied to the faces of the tile. The water-soluble adhesive can be removed easily prior to 'grouting of the joints.

Tin Oxide (Sn O₂). In finely ground form used in glazes as an opacifier.

Titania porcelain. A vitreous ceramic whiteware for technical application in which titania (TiO₂) is the essential crystalline phase. (ASTM C 242).

Titania whiteware. Any ceramic whiteware in which titania (TiO₂) is the essential crystalline phase. (ASTM C 242).

Trammel bar. A trammel bar, which is easy to construct, is more accurate than many other layout tools. It is used to erect perpendicular lines and to bisect angles. The tilesetter can make a trammel bar from a stick of a size that is suitable for the particular job.

Trial batch. A batch of concrete prepared to establish or check proportions of the constituents.

Trimmers. Units of various shapes consisting of such items as bases, caps, corners, mouldings, angles, etc., necessary or desirable to make a complete installation and to achieve sanitary purposes as well as architectural design for all types of tile work. (ASTM C 242).

Tongue and groove. A type of lumber or precast concrete pile having mated projecting and grooved edges to provide a tight fit, abbreviated "T & G."

Underglaze decoration. See Decoration, underglaze.

Unglazed paver tile. See Pavers.

Unglazed quarry tile. See Quarry tile.

Unglazed tile. A hard, dense tile of homogeneous composition throughout, deriving color and texture from the materials of which the body is made. The colors and characteristics of the tile are determined by the materials used in the body, the method of manufacture, and the thermal treatment. (ASTM C 242).

Vapor barrier. Waterproof membrane placed under concrete floor slabs that are placed on grade.

Vellum glaze. A semi-mat glaze having a satin-like appearance. (ASTM C 242).

Vertical broken joint. Style of laying tile with each vertical row of tile offset for half its length.

Vitreous. --0.5 percent to 3 percent water absorption.

Vitreous slip. A slip coating matured on a ceramic body, producing a vitrified surface. (ASTM C 242).

Vitreous (Vitrified). That degree of vitrification evidenced by low water absorption. (See also ImperVIOUS; Nonvitreous; Semivitreous.) (ASTM C 242).

NOTE: The term vitreous generally signifies less than 0.5 per cent absorption, except for floor and wall tile and low-voltage electrical porcelain which are considered vitreous up to 3.0 per cent water absorption.

Vitreous tile. Tile with water absorption of more than 0.5 percent, but not more than 3.0 percent. (ANSI A137.1-1980).

Vitrification. The progressive reduction in porosity of a ceramic composition as a result of heat treatment, or the process involved. (ASTM C 242).

Vitrification range. The maturing range of a vitreous body, producing a vitrified surface. (ASTM C 242).

Void. An unfilled space in a material of trapped air or other gas.

Wall tile. A glazed tile with a body that is suitable for interior use and which is usually nonvitreous, and is not required nor expected to withstand excessive impact or the capillaries.

Warpage. A concave or convex curvature of a tile so that the surface is not perfectly flat.

Water absorption. The ability to take up and retain water.

Water-cement ratio. The ratio of the amount of water, exclusive only of that absorbed by the aggregates, to the amount of cement in a concrete or mortar mixture; preferably stated as a decimal by weight.

Water level. The water level is a piece of clear plastic hose 1/2" to 1" in diameter and usually about 50' in length. It is filled with water, from which all air must be removed.

Waterproof membrane. A membrane, usually made of built-up roofing, to provide a positive waterproof floor over the substrate, which is to receive a tile installation using; a wire reinforced mortar bed. (CTI)

Wearing course. A topping or surface treatment to increase the resistance of a concrete pavement or slab to abrasion.

Weathering. Changes in color, texture, strength, chemical composition or other properties of a natural or artificial material due to the action of the weather.

Welded-wire fabric. A series of longitudinal and transverse wires arranged substantially at right angles to each other and welded together at all points of intersection.

Welded-wire fabric reinforcement. Welded-wire fabric in either sheets or rolls, used to reinforce mortar and concrete.

Well-graded aggregate. Aggregate having a particle size distribution which will produce maximum density, i.e., minimum void space.

Wet areas. Interior or exterior tiled areas subject to periodic or constant wetting. Examples: showers; sunken tubs; pools; exterior walls; roofs; exterior paving and interior floors. (CTI)

Wet pressing. See Pressing, wet.

Wet process. See Process, wet.

Wetting. The thorough impregnation of a material by a liquid. The more viscous a fluid, and the higher its surface tension, the more difficult it is for the liquid to "wet" materials. Certain additives, for example, water softeners, reduce surface tension, or viscosity and improve wetting properties, allowing the material to flow out more.

Wetting agent. A substance capable of lowering the surface tension of liquids, facilitating the wetting of solid surfaces and permitting the penetration of liquids into the capillaries.

Whiting. Calcium carbonate powder of high purity. (ASTM C 242).

Wire mesh. See Welded-wire fabric.

Wood float. The wood float is sometimes used in place of the flat trowel for floating mortar. It is good for smoothing small irregularities left on the mortar bed, working the surface of the mortar before troweling on the pure coat, or compacting floor and deck mortar.

Workability. The property of freshly mixed concrete or mortar which determines the ease and homogeneity with which it can be mixed, placed, compacted, and finished.

Wrinkled sheets. Pertaining to ceramic mosaics mounted on paper. Due primarily to rough handling in shipment.

Yellow ware. A yellow semivitreous ware or an earthenware with a colorless clear glaze. (ASTM C 242).

Zircon porcelain. A vitreous ceramic whiteware for technical application in which zircon (ZrO_2 - SiO_2) is the essential crystalline phase. (ASTM C 242).

Zircon whiteware. Any ceramic whiteware in which zircon (ZrO_2 - SiO_2) is the essential crystalline phase. (ASTM C 242).

Distributed by:

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