

Tile & Stone Industry

GLOSSARY OF TERMS



Accelerators – materials used to speed up the setting of Portland-cement-based products such as mortars and grouts.

Acrylic – a general class of resinous polymers, also known as latex, used as additives to increase performance properties for cementitious products such as thin set mortar and grout.

Adhesive – used for bonding tile and stone to a variety of substrates and surfaces. Also known as mastic, thinset or tile mortar.

Admixture – materials other than water, aggregates or hydraulic cement added to thinset mortar or grout before or during mixing to enhance performance properties.

Aggregate – coarse material such as sand, gravel or crushed stone that is combined with cement products to add body and form a hydraulic cement or mortar.

ANSI – The American National Standards Institute. A private, non-profit organization that administers and coordinates the U.S. voluntary standards and conformity assessment system.



Backsplash – the area typically located between the countertop and upper cabinet in a kitchen.

Back-Buttering – the application of a bond coat to the back of a tile with a setting agent like thinset mortars prior to setting the tile into place, ensuring proper coverage and level installation. It is also known as flat-back troweling.

Beveled Edge – an edge treatment done to tile and stone that slopes the edges all the way around the tiles surface.

Bond Coat – material used between the back of the tile and the prepared surface. Suitable bond coats include Portland cement, dry-set Portland cement mortar, polymer-modified (or latex-reinforced) Portland cement mortar, organic adhesive (mastic) and epoxy mortar or adhesive.

Bond Strength – the ability of the bond coat to resist separating from the tile and setting adhesive. Typically measured in pounds per square inch (psi).

Border – a strip of tile with design, texture or contrasting color that creates a design concept.

Breaking Strength – the force needed to break a tile—typically measured in pounds per square inch (psi).

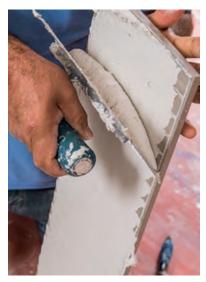


Figure 1 - Back-buttering (flat-back troweling)



Bullnose – a trim tile with a convex radius or finished edge on one side. It is used for finishing top of wainscot, turning of an outside corner, or floor base.

Caulk – a soft, water-resistant acrylic or silicone material used for sealing joints. Typically used in seams between tile and fixtures or walls, caulk provides a waterproof seal where tile abuts other materials, such as bathtubs, sinks or walls.

Cement Grout – a cementitious mixture of Portland cement, sand and other additives combined with water to produce water-resistant, uniformly colored material used to fill the joints between tile units.

Cementitious – description for material containing the properties of cement.

Cementitious Backer Unit / Board – a backer board designed for use with ceramic tile particularly in wet areas. It can be used in place of metal lath, Portland cement scratch coat and mortar bed.

Ceramic – a thin surfacing unit composed of various clays fired to hardness. The face may be glazed or unglazed. Ceramic tile is typically made from red or white clay and used in several areas throughout the house or commercial setting.



Figure 2 - Cement grout application

Chemical Resistance – the ability of a polymeric material to maintain its original properties after exposure to an indicated chemical reagent environment for a specified time-period.

Cleavage Membranes – designed to separate the backing surface from the mortar setting bed and tile. These allows the setting bed to be unbonded, free-floating and not subject to the instability of the backing surface.

Color Body Porcelain – porcelain tile in which the body of the tile is similar in color to the surface of the tile.

Compressive Strength – the capacity of a material or structure to withstand loads tending to reduce size, as opposed to withstanding loads tending to elongate. Typically measured in pounds per square inch (psi).

Cove – a trim tile with one edge a concave radius. Used to form a junction between the bottom wall course and the floor, or to form an inside corner.



Crack Isolation Membrane – sheet and liquid products designed to absorb stresses produced by movement in the concrete. The purpose of the membrane is to stretch with the movement of the concrete, but not allow this movement to transfer to the face of the tile or grout joint.

Cure – the period of time a tile installation setting material must be undisturbed and allowed to set to reach partial or full strength.

Decorative Tile – any tile face with a decoration on the surface.

Dry Set Mortar – cement-based setting material for thin-bed installations. Also known as non-modified thinset mortars.

Dye Lot – a product's shade with reference to the coloration and reflectivity, which varies from batch to batch —typically referred to in tile and grout.

Dynamic Coefficient of Friction (DCOF) – the slip resistance of a tile.

Efflorescence – a white crystalline deposit composed of salts, lime and/or other minerals. These deposits may become visible on many types of building product surfaces such as concrete, stucco, grout, masonry, brick, natural stone, clay, ceramic and even wood.

Epoxy Adhesive or Mortar – a two-part adhesive system consisting of epoxy resin and epoxy hardener. It is typically used for bonding certain ceramic tile or stone to key substrates such as metal or steel.

Epoxy Grout – a two- (or more) part system consisting of epoxy resin and epoxy hardener, and sometimes a colored aggregate. It is made to have impervious qualities and be stain and chemical resistant. It is used to fill joints between tiles.

Expansion Joints – also known as movement or movement-accommodation joints, these joints are applied through the tile, mortar and reinforcing wire down to the substrate. By integrating these joint through the entire tile assembly, expansion and contraction takes place without compromising integrity.



Field Tile – the primary tile used to cover a wall or floor.

Flat-Back Troweling – the application, using the flat side of the trowel (keying in or burning in), of a thin layer of modified or non-modified thinset mortar to the backside of ceramic, porcelain, glass and stone tile just before installation. Also known as back-buttering, this process is particularly used for large and heavy tile (LHT) and glass tile.

Float Coat – the final mortar coat over which the neat, pure or skim coat is applied.

Float Strip – a strip of wood about 1/4 inch thick and 1-1/4 inches wide. It is used as a guide to align mortar surfaces.

Floating – a method of using a straightedge to align mortar with float strips or screeds.



Figure 2 - Field Tile

Floor Tile – a ceramic tile or natural stone tile durable enough to withstand traffic and abrasion.

Frost Resistant – vitreous tile that absorbs 0.5% to 3%.

Frost Proof – impervious tile that absorbs 0% to 0.5%. It is the strongest tile for outdoor use.

Furan Grout – a two-component, 100% carbon-filled bonding material for chemical resistant masonry units and quarry tile.

Glazed Tile – a tile that has an impervious facial finish composed of gaseous ceramic materials fused to the surface of the tile defining the color and surface texture.

Granite – a natural stone denser than marble. Granite is molten lava that never rose to the surface of the earth. It is extremely durable and holds a polish. Available in polished, honed or flamed (rough) surfaces.

Grout – a blend of sand, cement and chemical mix for filling tile joints. Types of grout include cement, epoxy, urethane and pre-mixed. Grout is available in a wide variety of colors.

Grout Haze – a light film of residue that has dried on the surface of the stone or tile after grouting.

Hot Mop – a process to create a type of shower pan made of varying layers of hot asphalt and tarpaper.

Impervious Tile – has water absorption of 0.5% or less.



ISO – International Organization for Standardization — an independent, non-governmental, international organization that develops standards to ensure the quality, safety and efficiency of products, services and systems.



Joint – the space between tiles that is filled with grout or caulk.



Large, Heavy Tile (LHT) Mortar – a tile and stone adhesive specifically formulated to minimize shrinkage and slump as well as to yield a thicker bond coat up to 3/4" (19 mm) thick, surpassing a standard thinset mortar. LHT was formerly known as medium-bed mortars. These mortars are designed to install tile and stone that weighs 5 lbs. per square foot or more, or is greater than 15" on any side.

Figure 3 - Large, Heavy Tile (LHT) Mortar

Latex Portland Cement Grout – combines Portland cement grout with latex additives for enhanced performance.

Latex Portland Cement Mortar – a mixture of Portland cement, sand and latex additives that is used as a bond coat for setting tile.

Lath – metal mesh that acts as a backing or reinforcing agent for a scratch coat or mortar.

LEED – the acronym stands for Leadership in Energy and Environment Design. The LEED Green Building Rating System was established by the U.S. Green Building Council. The system defines standards for environmentally-responsible, healthier and more profitable structures.



Limestone – sedimentary stone that could have fossils or shells. It usually comes with a honed (matte) finish. Lacking a wide variety of color, the stones have little variety from piece to piece.

Listello – a decorative border, primarily for walls.

Lugs – protrusions attached to tiles to maintain even spacing for grout lines.

Marble – a natural stone product quarried from the earth. It gets a distinctive shine from the polishing process it goes through. It is available in multiple finishes and a wide variety of colors.

Mastic – a ready-to-use organic glue typically used for wall tile installation.

Moisture Absorption – as the density of the tile increases, the amount of moisture that tile can absorb decreases. Tile density and moisture absorption have an inverse relationship to each other. Tile density means that, as the weight or the density of the tile increases, it becomes a stronger tile.



Tile density and moisture absorption are important to understand when selecting tile for different applications.

Mortar Bed – the layer of mortar where tile is set. Also, the final coat of mortar on a wall, floor or ceiling is called a mortar bed.

Mosaics – ceramic, porcelain, glass, metal or stone tile mounted on mesh for ease of installation. They may come in squares, octagons, hexagons or random shapes. Mosiacs typically come in tile sizes 2"x 2" and smaller and are often used with different colors to create a pattern or decorative inset.

Mud – a term referring to thick-bed mortar consisting of sand and cement.



Figure 4 - Mosaic tiles installed in a backsplash

Natural Stone – stone products such as granite, marble, limestone, slate, travertine or sandstone that are formed by nature — not artificial or man-made.

Nominal Sizes – the approximate size or thickness of tile expressed in inches or fractions of an inch.

Non-Vitreous Tile – has water absorption more than 7%.

Notched Trowel – a trowel with a serrated or notched edge. It is used for the application of a gauged amount of tile mortar or adhesive in ridges of a specific thickness.

Notched-Back Troweling – After flat-back troweling is completed, additional thin set mortar is applied to the backside of ceramic, porcelain, glass and stone tile and uniformly combed in one direction with an appropriate notched trowel just before the tile is installed.

NTCA – National Tile Contractors Association is a nonprofit trade association dedicated to the professional installation of ceramic tile and natural stone.

Open Time – the amount of time the bond coat (thin set mortar) retains its ability to adhere to the tile and then bond the tile to the substrate.

Organic Adhesive – a prepared organic material that is ready to use without the addition of liquid or powder, and cures or sets by evaporation. It is also known as tile mastics.





Figure 5 - Applying patch to concrete substrate

Patching Compound – a trowel-applied mixture of cement, aggregates and latex additives used to repair minor cracks and to smooth interior surfaces before installation of floor coverings. It is typically used over concrete, wood, tile, terrazzo and cut back adhesive.

Porcelain Tile – tile that is fired at a much higher temperature than regular ceramic tile. This makes it significantly harder and denser than other tile products. Because of its highly durable makeup, porcelain is more resistant to scratches and chips and can withstand temperature extremes. Also, because porcelain is non-porous, it is highly stain resistant, has very low water absorption ratings, and can be used for interior and exterior applications as well as heavy-use and commercial areas.

Pot Life – the amount of time material maintains its workable properties after it has been mixed or opened.

Running Bond – a masonry bond used in tiling where each brick or tile is laid as a stretcher overlapping the bricks in the adjoining courses.

Quarry Tile – a term for 6" × 6" impervious, unglazed tile typically used in commercial kitchens and restaurants.

Sag – a term used when a wall surface has developed a slide. Many tile adhesives are designed with non-sag properties for wall applications.

Sanded Grout – a filler sand material added to grout, providing a dense, rougher texture and appearance. Sanded grouts are typically used with joints 1/8" or larger.

Scarify – a mechanical means of roughing a surface to obtain a better bond.

Scratch Coat – a mixture of Portland cement, sand and water applied as the first coat of mortar on a wall or ceiling. Its surface is usually scratched or roughened so that it will bond properly with subsequent coats of mortar.

Sealant – an elastomeric material used to fill and seal expansion and control joints. This material prevents the passage of moisture and allows the horizontal and lateral movement at the expansion and control joints.

Sealer – a penetrant applied to prevent the absorption of liquids or other debris. It is used with porous materials such as quarry tile, cement grout and natural stone.



Self-Leveling Underlayment (SLU) – a mixture of cement, aggregates, and latex additives that is used to smooth and level interior surfaces prior to installation of floor coverings. It is typically applied over concrete, wood, tile, terrazzo and cut back adhesive.

Set-Up Time – the amount of time an adhesive or mortar spread on a surface takes to cure or harden.

Setting Bed – the layer of mortar where the tile is set. The final coat of mortar on a wall or ceiling may also be called a setting bed.



Figure 6 - Pouring self-leveling underlayment

Shade Variation – a range of color or shade in a stone or tile. Shade variation is inherent in all fired ceramic products, and certain tiles will show greater variation within their dye lots. The higher the shade variation, the greater the range of color there is from stone to stone or tile to tile. This is also true for some grout products from batch to batch.

Shelf Life – the maximum amount of time that an item can be stored before expiration.

Shower Pan – a waterproof barrier made of various materials formed into the shape of a pan. It is placed under the tile floor of a shower to catch any water that may seep through the tile and grout and direct it to the drain.

Silicone – is often used as a generic term for nearly all substances that contain a silicon atom. Typically used in caulks and sealers, it provides flexibility and repels water.

Skim Coat – a thin coat of diluted patching compound applied with a flat trowel to create flat and uniform surfaces on floors, walls and ceilings prior to installation of floor coverings.

Slab – large, thin, flat pieces of stone available in a variety of thicknesses. Slabs are used for countertop, table, wall cladding and paving applications.

Slake – allowing mixtures of thin set mortar or grout to stand (or sit) for a brief amount of time after thorough mixing. Slaking enables the moisture in the mix to penetrate lumps in the dry components, making it easier to complete the mixing procedure.

Slate – a natural material known for its dynamic colors and earthy appeal. Colors range from gray to blue to purple to black. Slate is used in both interior and exterior applications because of its natural look and durability.



Figure 7 - Slate



Spacers – plastic pieces used during installation to separate tile evenly. Manufactured in various thicknesses and shapes, spacers ensure that joints between tiles have a consistent width. This allows for an even finish when grouting the tiles and finishing the installation.

Stone – a natural substance found throughout the world — typically excavated.

Subfloor – a rough floor, typically plywood or boards, laid and fastened over joists where an underlayment or substrate is installed.

Substrate – the underlayment used for ceramic tile and natural stone installation.

TCNA – the Tile Council of North America.



Texture – surface quality and type of tile, stone and grout, independent of color.

Thick-Bed Mortar – a thick layer of mortar, usually more than 1/2 ", used for leveling.

Thinset – term used to describe the bond coat in a thin bed installation. It is made of sand, cement and usually a latex additive. Also known as dry-set, non-modified, modified mortars and tile adhesives.

Through-Body Porcelain – porcelain tile in which the pattern on the surface of the tile goes through the body of the tile.

Tile – a ceramic unit, usually thin in relation to facial area. Made from clay or a mixture of clay and other ceramic material. It has a glazed or an unglazed face and is synonymous with porcelain tile, glass tile and other tile materials

Travertine – similar composition to limestone but with holes created by hot springs. Colors include beige, red, yellow and brown and have some variation from piece to piece.

Trim pieces – various shaped of bases, caps, corners, moldings, angles, etc.

Tumbled Stone – a weathered, aged finish created when the stone is tumbled with sand, pebbles, or steel bearings.

Uncoupling Membrane – a sheet membrane system geometrically configured to provide air space between the tile and substrate allowing independent movement between the two surfaces and limit the transfer of stresses.



Unglazed Tile – a hard, dense tile of uniform composition without glaze. Often referred to as throughbody construction, they have no additional surface applications and are typically denser and more durable than glazed tile.

Unsanded Grout – has a smooth texture and appearance, and is used for joints less than 1/8" in width.

Urethane – an elastomeric polymer with excellent chemical and water resistance. Single-component (moisture cure) and two-part (chemical cure) systems are available. Both types may be applied in a fluid state and cure after installation. Typical tile industry applications include sealants, caulks, waterproofing membranes and high-performance flexible adhesives.

Vitreous Tile – has water absorption of more than 0.5%, but not more than 3%.

Wall Tile – glazed tile with a body suitable for interior use. It is typically not used on floors and not expected to withstand excessive impact or freeze-thaw conditions.

Waterproofing Membrane – a covering applied to a substrate before tiling to protect the substrate and framing from damage by water. It may be applied below mortar beds or directly beneath thin set mortar.

Wet Areas – tile surfaces subjected to moisture installed in areas including laundries, saunas, showers, steam rooms, swimming pools, tub enclosures and other exterior areas.



Figure 8 - Wet areas



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