

Talking Tile

Substrate

The material your tile will be adhered to... Usually concrete or drywall (also called gypsum or gyp board).

Setting Materials

The products used to adhere your tile to the substrate.

Epoxy Mortar – A mortar system designed for chemical resistance – using epoxy resin and hardener. This mortar has a high bond strength and is also high impact and temperature resistant. Epoxy can also be used as a grout.

LHT Mortar – (*aka - Medium Mortar Bed*) Mortar for ceramic tile and stone that minimizes slump and facilitates a thicker bond. This mortar is generally used for tiles that are 5lbs sqft, (or heavier) and tiles with varying thickness. Larger trowels are used to apply enough mortar to achieve coverage requirements.

Mortar - A mixture of lime with cement, sand, and water, used in building to bond bricks or stones.

Mud Bed - Based on the traditional method of packing a mortar bed over a surface before installing the tile.

Thinset – This is an application (of mortar) NOT the product itself.

Grouts

The products used to: hide imperfections, provide for expansion and contraction, and provide paths for water to travel to omit slips.

Epoxy - A grout system employing epoxy resin and hardener portions, often containing coarse silica filler, especially formulated for industrial and commercial installations where chemical resistance is important. These grouts also provide high bond strength, impact resistance, and improved stain resistance.

Polymer Modified – A factory-prepared mixture of cement and other ingredients, including a redispersible latex/polymer powder, to which only water is added at the jobsite, or a liquid latex admixture. When added in a latex form, it is added as a replacement for part or all of the mixing water. These grouts also provide high bond strength and deformability for point loads.

Standard Sanded – A factory-prepared mixture of cement, fine aggregate and other ingredients to produce a water –resistant, dense, uniformly-colored material meant for joints 1/8" in width or greater (*mostly floor applications*).

Standard Unsanded – A factory prepared mixture of cement, fine aggregate and other ingredients to produce a water –resistant, dense, uniformly-colored material meant for joints 1/8" in width or less (*mostly wall applications and with stone and glass*).

Urethane / Silicone / Acrylic – A one-part liquid ready-to-use grout that requires no mixing with water. These grouts may contain various types of water-based polymers including acrylics, urethanes or fillers that may be sanded or unsanded. These grouts also provide high bond strength, impact resistance and improved stain resistance.

Prevention Materials

Products used to prevent tile breakage, sound reduction and system failure.

Crack Isolation – A membrane (or application) that acts to isolate the tile from minor in-plane substrate cracking. Products come in sheet goods and liquid applied products.

Sound Isolation – Membranes that are intended to reduce floor-to-floor impact insulation sound (IIC). The higher the IIC or delta value, the less transmission of impact noise that is allowed by the membrane. Code requires a minimum IIC of 50 for sound reduction membranes. (Mandatory in condos, apartments and hotels)

Waterproofing – Single or multicomponent membranes applied in liquid or paste form, which cure into continuous membranes. These liquid or flexible sheet form membranes protect against water infiltration.

Talking Tile

Installation Tips

Glass– White or glass specific mortar should be used when installing glass products. This will aid with the translucency of the tile. If a dark mortar is used, it can change the color and reflectance of the glass.

Grout Joint Size – Nominal centerline of all joints shall be straight with due allowances for hand-molded or rustic tiles. In no circumstance should grout joint be less than 1/16". (p. 36)

Floor Tile on the Wall – Floor tile is manufactured for the floor based on the size and weight of the tile. Although floor tile can be used as a wall tile, it is important to coordinate with the installer prior to selection. Setting materials that will be needed to adhere a heavier tile to a vertical surface will increase the installation method, materials as well as the cost.

Lighting – Shadows and undesirable effects may result if the locations of lights (wall washers and cove lighting) are not carefully coordinated. Similar shadows are created from side lighting interior walls and floors when light shines at the angle through windows and doors. (p.33)

Running Bond / Brick Offset – For running bond / brick joint patterns utilizing tiles (square or rectangular) where the side being offset is greater than 18", the running bond offset will be a maximum of 33% unless otherwise specified by the tile manufacturer. If an offset greater than 33% is specified, specifier and owners must approve mock-up and lippage. (p.36)

Tile Terms

Ceramic Tile – A tile made from clay that has been permanently hardened by heat, often having a decorative glaze. Water absorption is very high. This type of tile is acceptable for interior applications only. Light traffic areas and tiles that have a decorative glaze are for walls only.

Coefficient of Friction (COF) – The measurement of a tile's frictional resistance, closely related to traction and slipperiness. (See *SCOF and DCOF*)

Cuppage – The acceptable expansion of a kilned ceramic or porcelain tile. (See p.35 for tolerances)

DCOF – Dynamic Coefficient of Friction = 0.42 wet (ANSI A137.1) This test measures dynamic friction, which is the frictional resistance one pushes against when already in motion. A slip occurs when pushing off with more force than the surface can resist.

Efflorescence – Where salts are carried to the surface from soils or masonry. Appears white, sometimes cream, red or pink. Cleaning is easy, but efflorescence will reoccur unless the source of water filtration is eliminated.

LFT – Large Format Tile – any tile that exceeds one side by 15" or higher.

Lippage – A condition where one edge of the tile is higher than an adjacent tile, giving the finished surface an uneven appearance.

Porcelain Tile - Tiles commonly used to cover floors and walls, with a water absorption rate of less than 0.5 percent. They can either be glazed or unglazed. These tiles have high chemical, thermal and shock resistance. This type of tile is acceptable for interior and exterior applications.

SCOF – Static Coefficient of Friction = 0.60 wet (ANSI A137.1) This test measures dynamic friction, which is the frictional resistance one pushes against when starting in motion. A slip occurs when pushing off with more force than the surface can resist.

Shading and Variation – Stone, as a product of nature, will have inherent variation in color, shade and character – including markings and veining, throughout any given lot of material. Variations from piece to piece are characteristic and acceptable. Because of this variation, several pieces should be requested as a sample to view the variation. Porcelain tiles are made to resemble stone and therefore, shading and variation are also common and acceptable in porcelain as well. (See p.2-3 for aesthetic classifications V0-V4)

Warpage – This condition is seen in large format tiles, mostly in planks. This is the acceptable "twist" of the tile due to firing and the length of the product. (See p.35 for tolerances)