

PORTLAND CEMENT MORTAR:

A mixture of Portland cement and sand, roughly in proportions of: 1:6 or 1:5 on floors. For wall installation the mixture usually contains lime (hydrated lime) for plasticity and will consist of Portland cement, sand and lime in the proportion of 1:5:1/2 to 1:7:1. These mortars are used for installing ceramic tile by the traditional or "mud" method.

DRY-SET MORTAR:

This is frequently called thin-set mortar or Portland cement thin-set mortar. A factory proportioned mixture contained Portland cement, sand and chemical additives that impart plasticity and water retention. Used as a bond coat for installing ceramic tile by the adhesive or thin set method. May be used over traditional "mud" or floated walls or floors as a neat bond coat or applied to dry or cured concrete and masonry surfaces using a notched trowel for the "thin bed" or adhesive method of installing tile. Absorptive wall tile does not have to be soaked when installed with dry set mortar. Factory prepared mortars are usually supplied in 50lb. (22.7 kg) bags and are available in white or grey. They are also supplied in "floor mix" and "wall mix". In addition to the two types of mixes some producers offer one thin-set mortar suitable for both floors and walls.

LATEX PORTLAND CEMENT MORTAR:

A mixture of liquid latex usually field mixed with Portland cement and sand or added to prepared sand/cement mixes and used as a thin bed mortar or bond coat. It provides extremely high bond strength, superior to dry thin-set mortars that are mixed with water only. Recommended for exterior applications with frost proof tiles. Also for industrial applications where vitrified or floor tiles are subjected to physical shock, thermal shock, and/or frost.

EPOXY MORTAR:

A mortar employing epoxy resin and epoxy hardener. Usually supplied in factory proportioned units with silica sand pre-blended into the resin or supplied as a separate package to be mixed with the resin and hardener.

MODIFIED EPOXY EMULSION MORTARS:

Epoxy adhesive mortar and/or grout employing water cleanable epoxy resins and hardeners usually supplied in factory proportioned kits containing the liquid resin, liquid hardener and bag of filler powder which may contain silica sand and/or Portland cement.

FURAN MORTAR:

A mortar consisting of Furan resin and Furan hardener. This is an extremely acid resistant mortar recommended where floor or grout joints will be exposed to strong acids. When using Furan grouts and mortars it is imperative that tiles be factory waxed or waxed on the surface with hot paraffin wax before grouting commences. It is extremely difficult or almost impossible to remove hardened Furan grout and mortar from the surface of unwaxed or unprotected quarry or unglazed tile.

EPOXY ADHESIVE:

An adhesive employing epoxy resin and epoxy hardener. Usually supplied as factory prepared kits with the hardener and resin pre-portioned. The resin or the hardener may or may not contain fine silica sand.



ORGANIC ADHESIVE:

A one-part prepared adhesive ready to use as supplied with no further addition of liquid or powder. The adhesive, which is of a thick mastic or paste consistency, is normally applied with a notched trowel and requires a fairly smooth surface. Special adhesives are available for walls, with long open time and for floors with faster setting time. Adhesives are available to meet specifications for Type I moisture resistance and Type I and II that are resistant to intermittent wetting and drying. Organic adhesives are not hard setting and should not be used under high lugged floor tile or under floor tiles which will be subjected to high point loading, industrial traffic, wagons or carts. Grouting must be delayed until the adhesive has become firm, which occurs, by the loss of solvent through evaporation or absorption into the floor or tile. Latex modified Portland cement grouts should be used for all adhesive installations.

COMMERCIAL PORTLAND CEMENT GROUT:

A factory prepared mixture of Portland cement, sand and other ingredients that produce a dense uniformly colored grout when properly installed and cured. Portland cement grouts should be wet cured or covered with polyethylene when used in thin set or dry set installations.

DRY-SET GROUT (Wall Type)

Factory prepared mixture of Portland cement, fine fillers and additives. Supplied in packages that are mixed with water at the job site. These grouts are designed to retain moisture and to cure in thin set and adhesive applications of ceramic wall tile.

LATEX PORTLAND CEMENT GROUT:

Mixture of job prepared sand/cement or factory prepared cement grout using liquid latex additive in place of water.

MASTIC GROUT:

A one part paste grouting composition that is used directly from the container.

FURAN RESIN GROUT:

A grout consisting of Furan resin and hardener used for quarry tile, packing house tile and paver tile in industrial applications requiring chemical resistance. Furan resin grouts have excellent resistance to acid solutions but may not be resistant to high concentrations of alkali. Tile must be hot paraffin waxed before grouting. Furan grouts are very difficult to remove from unwaxed tile or brick.

EPOXY GROUT:

A grout utilizing resin and hardener portions which often contains silica filler. These are specially formulated for industrial and commercial applications where chemical resistance is required to dilute acid and alkali. Epoxy grouts are not recommended for exposure to high concentrations of oxidizing acids.

SILICONE RUBBER GROUT:

An elastomeric silicone grout that is supplied in some prefabricated ceramic floor tiles and wall tiles. These joints are extremely watertight and resistant to staining, mildew, cracking and shrinking. Silicone rubber is also available in tubes for grouting corners, tubs, and finishing the joints where pre-grouted tiles are used.

EXPANSION JOINT:

Joints installed at prescribed intervals in concrete floors and as well as concrete and masonry walls to provide space for expansion and contraction in the structure. Ceramic tile should never be

installed over expansion joints by either the thin bed, adhesive or mud method. All expansion joints must be brought through the tile facing.

CONTROL JOINT:

Installed in large areas that come under stress and designed to control where the cracking will occur.

COLD JOINT:

These are formed between slab pours where the size of the concrete slab may be too large to be poured at one time. They occur when the concrete is poured and a second pour occurs after the first pour has begun to harden. These joints may not be identified or marked. However, the tile installer must be very careful because movement or cracking could occur at the cold joint between the two concrete sections.

WATERPROOFING: (definitions from American Concrete Institute)

"Waterproofing is the treatment of a surface or structure to prevent the passage of water (in liquid form) under hydrostatic pressure."

"Damp proofing is the treatment of a surface or structure to resist the passage of water (in liquid form) in the absence of hydrostatic pressure."

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