

LIGHTWEIGHT AND INSULATING PERLITE TILE MORTARS

The widespread use of lightweight perlite aggregate to replace sand in tile mortars is easily understood when one studies the advantages that perlite has to offer. In addition to cost savings made possible by the reduction of labor and fatigue, tile contractors are able to give their customers better installations.

ADVANTAGES OF LIGHTWEIGHT PERLITE AGGREGATE:

1. lighter in weight.
2. easier to handle and mix.
3. easier to transport.
4. less tiring to work with.
5. clean, and convenient to measure as perlite is supplied in bags.
6. eliminates messy piles and waste of aggregate; unused portions are easily removed and can be used elsewhere.
7. lightweight perlite aggregated tile mortars impose less dead load on structural members.
8. since the perlite aggregate is bagged dry, thawing out is not necessary in winter as is the case with sand.
9. tile mortars containing lightweight perlite aggregate are:
 - light in weight
 - provide thermal insulation
 - crack resistant
 - vermin proof
 - resilient
 - uniform in quality
 - fire-proof
 - provide sound insulation
 - moisture proof
 - easy to use
 - bondable
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INGREDIENTS:

CEMENT	Portland cement, Type I.
PERLITE AGGREGATES	Genulite M45
LIME	Hydrated.
POLYPROPELENE FIBERS*	Supplied by WR Grace.
WATER	Potable.

*(*Fibers may be used for added strength.)*

ACCEPTED MIX PROPORTIONS FOR PERLITE TILE MORTARS

Several different mix proportions are used by tile setters but the mix most commonly used is presented in the following table. All materials should be thoroughly mixed dry and then sufficient water should be added to obtain the desired consistency. The use of excessive water should be avoided.

Typical Lightweight Perlite Tile Mortar Mix	
Materials	Parts by Volume
Portland Cement	1
Perlite	4
Hydrated Lime	1/2
Reinforcing Fibers	0.3 kgs

(*Fibers may be used for added strength.)

This mix can be used for the scratch coat, leveling coats and tile setting bed. 48 hours should be allowed for the scratch coat to set up. On a scratched and plumbed wall, a softer consistency mortar is required than if tile is to be floated directly on a wire mesh or hardness cloth.

APPLICATION

It is recommended that a thin coat of Portland cement paste be troweled or brushed over each previously soaked and drained tile before it is installed on a lightweight perlite mortar bed. This skim coat assures a satisfactory bond.

It is suggested that the tile setting bed be trowel cut both vertically and horizontally every three or four courses of tile to prevent cracking which may occur. Kitchen and lavatory ceilings may be easily tiled using lightweight perlite tile setting mortars. The lightweight of this mortar makes it much less tiring to trowel onto ceiling areas.

TILED CEILINGS

Kitchen and lavatory ceilings may be easily tiled using lightweight perlite tile setting mortars. The lightweight of this mortar makes it much less tire to trowel into ceilings areas.

REMODELING

Lightweight perlite tile mortars are especially suited for remodeling. The reduced weight of finished installations places a minimum of loading on old walls and the building structure.