



INSTALLATION AND MAINTENANCE INSTRUCTIONS FOR KERAMOS PRODUCTS

- Please check all tiles carefully before installation.
- Please use only Experienced Contractor/Tile Mason for Laying Keramos Tiles.
- The Tiling Must be Supervised by the Architect/ Project Manager/ Contractor/PMC.
- Follow instructions of Adhesive / Grout / Sealant / Floor Cleaner Manufacturer and use their material on small areas for testing.
- It is recommended to finish all site jobs like painting and polishing, electrical, A/c ducting, Carpentry and Civil work before installation of tiles on the floor.
- If in doubt, Contact your nearest Keramos Showroom.

A. INSTALLATION

A. FIXING

There are two basic methods for laying tiles i.e.

(a) THIN SET

Recommended for all type of KERAMOS / TILEDEPOT tiles, Mosaics, Terracotta, Salamanca, Terra Rossa, Faenza, Lugano, Portugese Paving, Glass Mosaics and Contemporary wall finishes. The Thin Set method is used when the surface is rigid, sound and smooth. Also it should be used for all pre-sealed tiles.

1. Thoroughly dust tile surface by rubbing with clean cloth or brush. **Wetting of tiles is not necessary or recommended.**
2. Use only white thin set tile adhesive (i.e. LATICRETE / ARDEX) for its installation. **Read manufacturer's instructions carefully.**
3. Prepare area on which tile is to be set by thoroughly cleaning to allow bonding of thin set adhesive to the floor.
4. Remove tiles from several boxes and mix them together to have a good mixture of colors for each grid.
5. Begin installation making sure each tile has at least 90 percent coverage of the thin set adhesive.

6. Thin set tile adhesive should be trowelled (using a "notched trowel") on a small area of floor at a time.
7. Place tile on the trowelled section with a twisting motion while pressing down with hand and spacing to desired joint (1 mm to 10 mm).
8. With the wooden handle of tool tap over the tile surface. If a hollow sound is heard pick up the tile and butter with more thin set tile adhesive to the area where coverage was not initially attained.
9. After tiles are installed allow a 24-hour period before grouting.

(b) THICK BED

(Suitable for KERAMOS Antique Stone, Pescara Terrazzo Loose Pebbles). The thick bed method is used when the surface to be tiled is uneven and also when the tiles are heavy in nature.

1. Thoroughly dust the tile surface by rubbing with a clean cloth or brush.
2. The tiles are to be soaked in water before starting fixing.
3. For thick bed installation of tiles cement mortar is recommended in ratio of 1 part cement 2 parts sand.
4. Level the area on which tile is to be fixed and start laying tiles. If any pattern has to be worked out, make drawing on the floor before starting laying of the tiles.
5. It is suggested to mix tiles from various boxes to get a good mixture of color variation, if any.
6. Cement mortar should be trowled on the back portion of tile and firmly pressed down and space to desired joint (1 mm to 10 mm), Beat on top of tiles surface with the wooden handle of the tool to assure 100% bond coverage and contact.
7. Allow the tile on the floor to cure for 48 hours prior to grouting. **DO NOT WALK** on the tiles during curing.

After laying the tiles, grouting, sealing and cleaning is done as follows.

B. GROUT

1. Before grouting all the tiles must be firmly set and all spacers, string and ropes should be removed.

2. For porous clay pavers like Terra Rossa, Spanish Terra Cotta, Salamanca, Faenza it is recommended to seal the surface before grouting to avoid grout haze.
3. It is recommended to use readymade grouts available (Laticrete/ Ardex) for floor as well as wall grouting. **For these please follow manufacturer's instructions.**
4. Grout in a diagonally motion with a hard sponge and let it set for about 10 to 15 minutes before washing the excess away. **DO NOT LET GROUT SET ON THE TILE. DO NOT USE ACID ON TILES.** Grouting level should be slightly below the tile level.
5. Use a damp sponge and water in a circular motion to wash excess grout away. Clean up the grout completely and immediately. Do not leave any grout on the tile over night. Otherwise, it will set on the tiles surface.
6. After clean up allow grout to cure for about 72 hours before use.

C. SEALING

Sealers are recommended for use on porous unglazed surfaces such as the clay pavers, terracotta, antique stones, stone mosaics and rough porcelain tiles. **Application and maintenance should be as per the manufacturer's directions.** Under normal conditions, sealants will normally last for one year.

The tile surface should be cleaned properly with a cotton cloth. Before applying sealant make sure that the surface is also bone dry. Sealer can be applied by sponge or cotton cloth. The second or third coating can be applied after a gap of 3-4 hours of each coat. **DO NOT WALK ON THE TILE UNTIL THE SEALER IS DRY.**

Following sealer is available from KERAMOS. •

Wet Look Sealer

D. **PROTECTION** : After the installation of tiles is complete, the floor must be covered till **ALL** construction work is complete. It is recommended that polythene sheet and jute bags should be used for covering. Further, after tile installation, no metal scaffolding, metal ladders etc should be used on the floor to avoid damage.

Please note the following additional information on the various KERAMOS products:

I. CLAY PAVERS / SPANISH TERRACOTTA / TERRA ROSSA

Clay Pavers should be installed using **ONLY** the thin set method. Pre-sealing is recommended. Tile adhesive or grout should not be allowed to dry on the surface of the tile. All excess adhesive / grout should be cleaned immediately. This is **VERY IMPORTANT.**

For Interiors, if a wet look is required, sealing with Wet look sealer is recommended, after the Tile is completely dry.

n CONTEMPORARY SURFACES . MOSAICS & SMALL PEBBLE MOSAIC

KERAMOS Contemporary Surfaces, Mosaics and small pebble mosaic are installed by thin set method. These are pre-assembled on fibre-mesh and supplied ready-to-lay. There is no need to remove the mesh before fixing because the tiles face right side-up. Care should be taken that no tile adhesive or grout is allowed to dry on the Surface.

Stone mosaics should be sealed by a "wet look sealer " if a color enhancement is required.

Stainless steel mosaics require extra care during installation to avoid scratches on the surface.

HI. HANDMADE TILES

Handmade Tiles can be used for walls and residential, light traffic floors. These can be installed using the thin set method. These are not to be soaked in water. For Adhesive, please mix MYK-Laticrete 111 along with MYK-Laticrete 73 as per manufacturer's instructions. Kindly note that water based adhesives are not suitable, especially for the White/Ivory and Light Pastel color tiles. Adhesive should not be allowed to set on the tile.

For Grouting, please use MYK-Laticrete 600 Series Grout along with MYK-Laticrete 1776 Grout Admix plus as per manufacturer's instructions.

IV. GLAZED WALL / FLOOR TILES / DECORATIVE TILES

Decorative / Glazed tiles can be installed using the thin set method. A minimum 1-2 mm grout is recommended. These tiles can be used both for the floor & walls. Sealing is not recommended.

V. FULL BODY PORCELAIN

This is a through body porcelain tile. This porcelain tile can be installed using the thin set method. A minimum 2-3 mm grout is recommended. These tiles can be used both for the floors & walls. Sealing is optional.

VI. 'PIAZZA CONCRETE PAVERS'

(i)Excavation- The excavation depth for a typical domestic driveway is 200-250mm below finished paving level, based on 100-150mm sub-base, 40mm sand bed and 50mm pavers.

(ii) Sub-base- Spread, level and compact a minimum 100mm thick layer of sub-base material.

(iii)Laying Course-Spread, level and compact laying course sand, and **screed** to correct level. When compacted, the laying course sand should be 25-40mm deep. The key to successful screeding is creating a smooth, even and flowing surface on which to lay the pavers. The surface profile of the screeded laying course more or less matches that of the finished pavement, so attention to detail is essential.

(iv) Paver laying-The paver are randomised prior to laying by selecting them from at least three open packs, this helps prevent blotching or banding of colours and allows the paving to show off the full range of hues to best effect.

(v) Alignment and compliance-Once all the pavers are laid, they need to be checked for alignment by using a string line stretched along the diagonal courses and adjusting as necessary, using the alignment bar tool. Pavers often require significant re-alignment as the imperfect rectangles are prone to drifting off-line during the laying process.

(vi) Jointing and compaction-The final task is dried fine sand is spread over the pavers surface and swept into the joints using a soft brush. The paving is now compacted using a compactor.

(vii) Completion- Excess jointing sand can be swept off the surface and it is now ready to be used. The jointing sand may settle over the first few weeks and should be topped up as soon as this becomes apparent. Regular **maintenance** will keep the pavement in tip-top condition and some clients will want to consider the use of a **sealant** to protect from accidental staining.

Vii. YAMU SANDWASH AND LOFT POLISHED CEMENT WALLS

These are installed by KERAMOS only. Please contact KERAMOS for details of site and base preparation.

PORTUGESE PAVING / LYON POLISHED STONE MOSAIC CARPETS

For Polished Mosaic, Polished Antique Stone, Portugese Paving , detailed instructions are available from the KERAMOS showrooms. These are recommended to be installed by KERAMOS authorized installers. Please contact KERAMOS for details.

XI . CERAMIC SUNBREAKERS / JALI

INSTALLATION

- (a) Before installation can start, the support grid needs to be prepared.
- (b) For large building exteriors, RCC columns and beams are required with a maximum width of 3 metres and height of 2 metres and minimum section of 100mm x 100mm.
- (c) For small internal partitions, wooden sections 75mmx75mm can also be used for grid in size of 2 metre x 2 metre.
- (d) After preparation of grid the individual pieces are fixed with epoxy resin (araldite) starting from bottom to up, horizontal row- wise. All excess resin MUST be cleaned immediately before hardening. A time period of minimum 1 hour is needed for curing of each row, before starting on the next higher row.
- (e) The end pieces are also anchored to the columns with epoxy resin.
- (f) NO LOAD is permitted on the partition wall.

II. MAINTENANCE:

- (a) Exterior partitions can be periodically cleaned by vacuum cleaner/ pressure air/ water jet.
- (b) For internal partitions, manual / vacuum cleaning is recommended.

B. CARE AND MAINTENANCE

I. PESCARA TERRAZZO TILES

A. Sealing

Immediately after final polishing of the floor, application of a good quality impregnating sealant to reduce water absorption and staining is highly recommended.

B. Maintenance

1. Since mosaic tiles/ Cement Terrazzo floors are cement products, care is to be taken to prevent water, oil or any other fluid stains. Organic material like foodstuffs, wooden saw or other particles etc should be carefully avoided
2. Cement Tiles need to be protected from staining before and after polishing works. Special care is necessary to protect the tiles from works of other trades like Carpentry, painting, POP, fabrication, Electrical works etc. It is recommended that tiles be covered adequately by completely covering with suitable plastic sheets or equivalent.
3. After final polishing is completed, Tiles are to be cleaned with a wet duster using clean water and duster only- atleast twice daily, initially for 2-3 months (if the floor is well sealed- mopping once a day is usually sufficient)
4. Phenyl, Acids, strong detergents, bleaches, kerosene etc. are to be strictly avoided for cleaning as they have chemical reaction and tend to adversely affect the tiles. Cement products are normally not acid resistant.
5. Whether the flooring is put to use or not, Tiles cleaning is to be commenced immediately after final polishing of the tiles is completed.
6. If proper cleaning, maintenance is not done, re-polish of the floor is required, as the cement floor develops a dirt layer . However, rebuffering or re-polishing should be done by an experienced and an expert hand only.

C. Summary

1. IMMEDIATE - Removal of all staining material / Spills.
2. DAILY - Cleaning with wet duster / Clean water at least twice daily.
3. MONTHLY - Cleaning with surfactant floor cleaner like MoClean etc.
4. YEARLY - After cleaning, grout touch-up, buffing and re-sealing.
5. RE- POLISH- May be required if the above procedure is not followed.

n . SWIMMING POOL TILES

For maintenance of tiles and glass mosaics installed in swimming pools, a water softening plant and filtration plant is recommended to avoid any dirt deposit and hard water deposits on the tile surface, which results in dullness of color and loss of shine.

Professional swimming pool maintenance agency must be appointed for pool maintenance.

That the maintenance Contractor should ensure the availability of fully trained, experienced persons,

A. DAILY

1).He will check & maintain recommended PH level/ add TCCA 90 / Acid when required. 2).

He will check fluorine and maintain recommended level.

3) He will use copper sulphate for algae scale if required any time, especially when is algae very high, like rainy seasons & month of October.

4) Arrangement to keep the filter running for at least 8 to 10 hours every day/cleaning filter.

5) Checking of water softening plant/ recharging with salt.

6) Cleaning of pool using vacuum cleaner/ rubber scrubber/ pole net. The above should be done daily when the pool is filled with water, even when not in use.

B. MONTHLY

1. Service filtration plant.
2. Service water softening plant.
3. Check all pipes for blockages.

C. YEARLY

1. Empty pool and manually clean with surfactant cleaners ONLY.
2. Replace any broken / missing tiles.
3. Repair grout, if required.

III. TILES / MOSAICS / PAVERS / SANDWASH / CONTEMPORARY SURFACES.

All tiles should be periodically cleaned daily with clean water and sponge only. Whenever required use commercially available surfactant 'tile cleaners' like MOCLEAN .

Harsh Soaps and detergents like SURF or VIM should NOT be used. NEVER USE ACIDIC TOILET CLEANERS (HARPIC) OR ACID TO CLEAN TILES.