Thanks for purchasing ARTO high fired terracotta tiles, handmade in Southern California since 1966, and available both glazed and unglazed.

PRODUCTS

- California Revival Decos
- Monrovia Tiles
- Studio Tiles
- Glazed Brick
- 3D Impressions Wall Veneer

GENERAL TIPS

- **Cover pallets or store indoors** to protect from the elements and other trades.
- **Unglazed tiles may be sealed**, depending on application, but glazed tiles do not need to be sealed.
- **Water intrusion can damage tiles and the installation**. Waterproofing membranes are strongly recommended for exterior installations and mandatory for wet areas.
- **A clear overglaze must be specified for tiles installed in waterline or submerged applications**. Water chemistry should be tested and adjusted regularly to prevent etching of the glazed surface.
- **Do not use acids, alkalis, or other harsh chemicals** to clean tiles before, during, and after installation.

SUBSTRATE PREPARATION
• The substrate is the surface to which your ARTO tile will be stuck.
• Approved substrates include cementitious backer boards, concrete masonry units, concrete panels.
• Bonding direct to drywall or wood substrates is not recommended.
• Gypsum backer boards should not be used for exterior applications, wet areas, or anywhere moisture is a concern.
• Concrete substrates must be clean, dry, and free of contaminants.
• Concrete substrates should have roughened surface for best bonding.
• All substrates must meet minimum deflection requirements L/360.

**Movement joints**
- Must be included per the TCNA Handbook\(^1\) and are mandatory for walls and floors.
  - Interior: 20’ to 25’ in each direction
  - Exterior: 8’ to 12’ in each direction
  - Interior: 8’ to 12” in each direction (areas exposed to sun or moisture)
- Do not tile over movement joints.
- Soft joints are required at perimeters and transitions to different materials.

**MORTAR**

• **Large format mortar is recommended for Monrovia tiles**\(^2\). Thin set mortar may be used for Studio tile and Glazed Brick.
• **Do not apply mortar thicker than recommended** in order to repair substrates, level tiles, create transitions, or for any other purpose.
• Mix mortar and clean cool water using a variable speed electric drill or mixer with a birdcage mixing attachment.

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\(^1\) Section EJ171 of the TCNA Handbook provides more details and extended discussion.
\(^2\) Large format mortar is recommended for tiles weighing more than 5 pounds per square foot or with any edge 15” or greater.
INSTALLATION – CERAMIC WALL TILES

- Stir occasionally with trowel to keep fluffy. Do not retemper (add water) to already mixed mortar.
- Use ½” square or ¾” rounded notched trowel to spread mortar on the substrate using the flat side of the trowel.
- Form grooves in one direction under each tile using the notched side of the trowel.
- Using the flat side of the trowel, spread mortar on the back of each tile to achieve 100% mortar coverage.
- Place tiles by moving them perpendicular to the mortar ridges so that the ridges collapse and all voids are filled.

GROUTING

- Make sure grout selected is appropriate for grout joint width.
- Unglazed tiles and textured glazes can be presealed to ease grout clean up.
- Clean grout promptly with wet sponge to avoid staining.
- Using a grout bag is recommended to fill the joints rather than floating or smearing grout.
- Fill grout bag and twist until slack is taken up. Roll the bag tighter to maintain constant pressure.
- Squeeze bag in order to completely fill each joint slightly higher than the tile surface.
- When grout begins to set up, tool the joint to compact the grout.
- Clean excess grout before it hardens on the tile surface.
- Do not use too much water when cleaning as it can weaken grout and cause cracking.
- Damp curing by misting the grout joints two or three times daily is strongly recommended. This will help minimize grout shrinkage and cracking.
- Allow grout to cure for 72 hours.

SEALING

- Glazed tiles do not require sealing.
- Unglazed tiles can be sealed with penetrating or topical sealer depending on application and desired appearance.
o Penetrating – matte, “invisible” finish that protects below surface
  o Topical – glossy or satin, coats surface to create barrier

• Make sure sealer selected is appropriate for installation type and location.
• Apply sealer per the sealer manufacturer’s instructions.
• Two coats of sealer are typically needed.
• Make sure to allow sealer the recommended time to cure in between coats.
• Water should initially bead up on surface when tiles are sealed.
• Stains should be cleaned promptly. sealer does not waterproof tile and stains will eventually penetrate or etch sealer.

CLEANING

• Clean regularly with warm water and pH-neutral cleanser.
• Do not use acids, alkalis, or other harsh chemicals for regular cleaning.
• A mild acid or alkali cleanser may be used for spot cleaning. Make sure to test first on a small, unobtrusive area to ensure desired results.
• Do not use chemical or mechanical abrasives including stiff bristle and wire brushes, sandpaper, or power washing.