Conditions and requirements

- Concrete floors shall be constructed in accordance with the American Concrete Institute (ACI) 302.1R-04 Guide for Concrete Floor and Slab Construction and ACI 302.2R-06 Guide for Concrete Slabs that Receive Moisture Sensitive Flooring Materials. Please consult www.concrete.org for the most current editions of ACI’s.
- Floors must be finished and cured according to ACI with a minimum compressive strength of 3500 psi.
- Floors must be clean, dry and smooth. Any surface materials such as paint, wax, grease, oil, adhesive residues, etc. must be mechanically removed.
- Floors must be free of any sealers, curing, hardening or parting compounds that would adversely affect the adhesive used with the flooring.
- A moisture barrier shall be installed prior to pouring of on or below grade slabs. All on-grade and below-grade concrete slabs regardless of the concrete’s age must have an effective moisture vapor barrier/retarder present under them. If a fully intact non-damaged vapor retarder cannot be confirmed, the concrete must be treated as if it will get wet from ground moisture at a future time.
- When a sub-slab vapor barrier/retarder cannot be confirmed install a surface-applied moisture barrier system.

Moisture reduction barriers

While Altro does not approve any specific MRBs, we do recognize the need for them in certain circumstances. There are no known incompatibility issues with Altro floor coverings, their adhesives and the many types of moisture reduction barriers available. Final determination of a particular product’s suit-ability and its warranties as regards to the performance of the moisture reduction system and/or any damage that may be caused to the Altro floor coverings and their adhesives due to deficiencies in the moisture reduction system are the responsibility of the moisture reduction system, manufacturer and installer. Please reference ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings.

- Always conduct moisture tests per ASTM F-2170 on all concrete slabs regardless of age or grade level. ASTM F-2170 relative humidity (RH) test results must not exceed 90% when using EcoFix 25E or 95% when using EcoFix 65 Spray. As a general rule, a 4” thick slab will require a minimum 3-month drying time before performing moisture tests.
- Concrete surface pH must be tested in several locations and be below a pH of 9.9.
- Wood floors must be double-layer construction with a minimum thickness of 1”. The top layer shall be APA Underlayment Grade Plywood or other wood underlayment panel approved and warranted beneath resilient flooring. Consult with the underlayment manufacturer for specific recommendations and warranties.
- Maintain room temperature, adhesive and flooring material at 68° F – 80° F (20C – 26C) for 72 hours before, during and after installation.

Preparation

- The existing subfloor should be mechanically abraded to remove any paint, wax, grease, oil, plaster, sealers, curing compounds and other foreign materials that may be present from the construction process.
- A thorough vacuuming should be done to ensure a dust-free substrate.
- Remove all subfloor ridges and bumps.
- Fill low spots, cracks, control joints and other defects with a Portland-based latex underlayment material. Follow all manufacturers mixing and application instructions.
- High spots may need to be ground down to ensure a surface flatness of 3/16” in 10 ft. Always allow patching material to dry/cure completely before installing the Altro Resilient Floor Tile.
- For proper removal of existing flooring and adhesives refer to the Resilient Floor Covering Institute guidelines.
- Follow all applicable local, state and federal regulations and laws pertaining to saw cutting, grinding and patching work of concrete. All work is to comply with OSHA 3902 Respirable Crystalline Silica Standard.
Adhesives

Altro Quartz Tile may be installed using either our pressure sensitive acrylic adhesive EcoFix 25E or our fast-acting EcoFix 65 Spray adhesive. Follow the installation instructions on the next page.

Using EcoFix 25E adhesive
- ASTM F-2170 relative humidity (RH) test results must not exceed 90%.
- Use EcoFix 25E adhesive wherever possible. Allow the adhesive to dry to a pressure-sensitive state before installing tile. When a wet set, hard set adhesive is needed use EcoFix 20E acrylic adhesive.
- Apply adhesive with a 1/32” deep x 1/16” wide x 1/32” notched trowel.
- Allow adhesive ample open time* to “gas off” and tack-up before proceeding to install tile. Installation too late in the pressure sensitive stage of the adhesive reduces the strength of the bond and can cause the lines of the adhesive to show through to the surface of the flooring.
- Flooring must be rolled in its entirety with a 100 lb. roller.
- The adhesive open time, working time, set and curing time will depend on the type of substrate, its absorbency, the temperature and the air humidity in the premises.
- Prohibit heavy traffic and pallet jack type rolling loads on floor tile for 72 hours after installation.

Using EcoFix 65 Spray adhesive
- Before use, be sure to shake can of EcoFix 65 Spray well.
- Spray from a standing position, holding can 20-30 inches (50-70cm) from floor.
- Protect walls from overspray with a spray shield or a piece of cardboard.
- Allow adhesive to dry to the touch. Test this by lightly touching the adhesive - there should be no adhesive transfer to your fingers. Too much adhesive or high humidity will increase dry time.
- Open working time after tack is 4 hours.
- Roll floor immediately with a 75-100 lb. roller.
- Floor is open to all traffic immediately after installation.
- Use mineral spirits for dry overspray.

Flooring must be rolled in its entirety with a 100 lb. roller.

Protection
- Equip all heavy furniture, appliances and carts with soft, non-staining casters or rests of sufficient size to meet static load resistance requirements.
- Use plywood panels to protect flooring from damage that may occur when moving heavy objects over flooring.
- Flooring should be covered and protected from all other trades during construction with a suitable non-staining protective covering such as Masonite™ or Ram Board®.

Tile alignment
- In laying out commercial installations of Altro Quartz Tile (large open areas, hallways, etc.), the use of a transit or laser is recommended to strike guidelines.
- The lines should be positioned so that tile will be used economically with as little waste as possible.
- Installations in long hallways with adjoining rooms should be carefully planned to provide for one half the tile width along walls and in the doorways if possible.
- Tile size may be altered in doorways to allow for adjustments in adjoining rooms.
- In smaller rooms where all border areas are plainly visible, care should be taken so that border tiles are uniform in width and as large as possible.

Laying tile
- Failure to follow these instructions can result in shading or appearance of different gloss levels. This out of shade condition will in fact not affect the tiles wear performance, however, it may be a visual complaint of which Altro cannot take responsibility.
- Lay tiles in a pyramid fashion, making sure each tile is firmly butted to the tiles laid before. In some cases tile run-off may occur due to uneven subfloor surfaces. To correct this, snap a new chalk line ¼ inch less than the next full tile size. Cut tile to fit along the new chalk line. Continue installing tile from this new straight line.
- Terminate flooring at centerline under doors or where adjacent floor finish is different.
- Install reducer strips at unprotected or exposed edges where flooring stops.
- Scribe flooring to walls, columns, cabinets, floor outlets and other stationary objects to produce tight joints.
- Install flooring under movable partitions and under open cabinets without interrupting tile pattern.
- Roll and cross roll entire flooring with a 100 lb. floor roller. Failure to do so may result in trowel ridge telegraphing and poor adhesive bond.
- Tungsten carbide-tipped scribing knives are recommended for scoring and snapping straight cuts - 24 inch tile cutters may be used, although the blade life will be reduced.

Quartz is a naturally occurring mineral and it can be challenging at times to achieve consistent color matching during the manufacturing of quartz floor tiles, especially in lighter colors. Therefore, Altro recommends installing Altro Quartz Tile (AQT) using a specific tile pattern layout in areas where color consistency is a concern.

When installing AQT in a monolithic layout, please be sure to follow the most recent version of the Altro Quartz Tile Installation Guide. Special attention should be paid to Altro’s recommended tile layout. Using the directional lines found on the back of the tiles, layout the lines in a “face to face” fashion, with the directional lines laid in an alternating sequence from tile to tile (as seen in diagram 1 next page).
Batch sequencing

AQT is manufactured in daily production runs consisting of one or more batches. Each SKU number, color name, daily production run and batch from that run are identified on the AQT carton labels. Before installation, and to achieve optimum visual results, installers must review the shipping papers and carton labels to plan the floor's layout by sequential batch number – keeping sequential batches adjacent, in sequence, in the layout. This is most important in large open floor areas where multiple batches are installed.

AQT Label Data Points

1. AQT SKU numbers and color names match those found in running line AQT products:
   a. Example: AQT 9301 Chalk
2. The daily production run is indicated by a sequential numeric date code:
   a. Example: 20181015 (October 15, 2018)
3. Batches are identified by an Alpha letter following the production run number:
   a. Example: A, B, C, D, etc.

A higher degree of color consistency occurs when batches from the same daily production run are installed in order of sequence. “A” is installed first, “B” second, “C” third, etc. Batches from different daily production runs may not perfectly match those from another daily production run. Altro recommends dry laying tiles from different daily production runs and inspecting them for color consistency with each different daily production run, before installing or spreading glue. The same should be done for batches that are not available in sequence.

If mixing non-sequential batches in a large open area or long corridor with no pattern breaks, dry lay tiles from each batch to inspect the tiles for consistency. After laying out the tiles, if the tile-to-tile color match is not as expected, please stop installation and contact Altro immediately by calling USA: 800.377.5597 or Canada: 800.565.4658 or by email to support@altrofloors.com. Altro will assist with an available solution.

Warranty

Altro’s Warranty will consider product claims on materials that have not been installed. Returns and exchanges will be considered for materials returned undamaged in original cartons. Any color consistency claims made after the material is installed will be the responsibility of the installer.
Initial maintenance

1. Do not begin any maintenance procedure for at least 72 hours after installation.
2. Sweep and vacuum floor surface to remove all loose dust and debris.
3. Prepare cleaning solution with clean, warm water and AltroClean 44. A dilution rate of 1:40 (or up to 1:10 for heavy soiling) may be used. **DO NOT FLOOD THE FLOOR.**
4. Scrub the floor using an auto scrubber (3-in-1 machine), standard low-speed swing machine (150rpm to 350rpm) fitted with an Altro Unipad or manually.
5. If manually scrubbing or using a standard low-speed swing machine, remove wash water with a wet vac. Ensure the floor is thoroughly rinsed with fresh, clean water. No cleaning residue should remain on the floor.
6. Allow surface to dry thoroughly before use.
7. Apply 2 coats of sealer to the floor. This will seal the tile joints and only needs to occur once.

**Maintaining Altro Quartz Tile with finish is optional, but preferred. If you are not applying finish, initial maintenance ends here.**

8. Apply finish to floor depending on product recommendations: **Altro Quartz Tile** 0-2 coats
   *finish is optional but preferred on Altro Quartz Tile*
9. Allow finish to become dry to the touch (45-60 minutes) in-between coats. Apply no more than 2 coats within 24 hours.
10. For additional protection or higher gloss level, apply additional coats of finish until desired amount is achieved.

Routine maintenance and additional tips can be found on the Maintenance guide for smooth tile floors at altro.com/techdocs.