

GENERAL PREPARATION AND CONDITIONING

- Read the literature concerning the product description, limitations, installation, maintenance and warranty prior to installation of tile
- Allow all trades to complete work prior to installation of Versa Quartz
- Deliver all materials to the installation location in its original packaging with labels intact
- Remove any plastic stretch wrap and strapping from product after delivery to jobsite
- Do not stack pallets of material to avoid any damage
- Maintain the installation area and tile between 65° F (19° C) and 85° F (30° C) for at least 48 hours before installation, during installation, and after the installation with permanent HVAC Systems in permanently enclosed spaces
- Inspect all material for proper type, color and matching lot numbers if appropriate
- Conduct the proper moisture emission and pH testing on the substrate
- Proceed with the installation only when the conditions are proper and correct
- Turn off radiant-heated flooring systems prior to installation and gradually increase the temperature after 48 hours from installation.

SUBSTRATE PREPARATION AND INSPECTION

- All substrates must be clean, smooth, permanently dry, flat, and structurally sound
- The substrate must be free of moisture, dust, sealers, paint, curing compounds, parting agents, residual adhesives, adhesive removers, hardeners, resinous compounds, solvents, wax, oil, grease, asphalt, gypsum compounds, alkaline salts, excessive carbonation or laitance, mold, mildew, any other extraneous coatings, films, materials and all other foreign matter
- In renovation or remodel work, remove all existing adhesive residue so that 95% of the overall area of the original subfloor/substrate is exposed by mechanical means
- DO NOT use solvent based or citrus based adhesive removers to remove existing adhesive prior to installation
- Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable industry, local, state, and federal standards

Concrete Substrates

- Concrete substrates to receive Versa Quartz shall be prepared in accordance with ASTM F 710, Preparing Concrete Floors to Receive Resilient Flooring
- Concrete substrates on all Grade Levels must be tested in accordance with ASTM F 1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride or ASTM F 2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs using in situ Probes to quantitatively determine the amount of moisture vapor emission at least one week prior to the installation – **Procedo recommends ASTM F 2170 Relative Humidity Testing performed using Wagner Rapid RH testing equipment**
- Caution: ASTM F 1869 or ASTM F 2170 tests cannot predict long-term moisture conditions of concrete slabs. Moisture testing only indicates moisture conditions at the time the tests are performed
- Before conducting ASTM F 1869 or ASTM F 2170 test, the installation area must be maintained between for 65° F (19°C) and 85° F (30°C) or at least 48 hours prior to testing, during testing and thereafter; in addition, the concrete's temperature range must also be identical to that of the installation area
- Conduct three tests for the first 1,000 sq. ft. and one additional test for each 1,000 sq. ft. or fraction thereof per grade level (on, below or above grade)
- The Vapor Emission Rate shall not exceed the following levels prior to installation
 - PRO610 Spray Adhesive
 - Wet-Set Adhesive
 - ASTM F 1869, Calcium Chloride, 8.0 lbs
 - ASTM F 2170, Relative Humidity, 90%
 - pH, 11 or less
 - PRO620 Acrylic Adhesive
 - Non-Releaseable Pressure Sensitive Adhesive
 - ASTM F 1869, Calcium Chloride, 5.0 lbs
 - ASTM F 2170, Relative Humidity, 85%
 - pH, 9 or less
- DO NOT install flooring if there is hydrostatic pressure
- Every concrete floor slab on-grade or below grade to receive resilient flooring shall have a permanent, effective moisture vapor retarder installed below the slab

Wood Subfloors

- Wood substrates to receive Versa Quartz shall be prepared in accordance with ASTM F 1482, Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring
- Wood subfloors should be of double layer construction with a minimum thickness of 1"
- Crawl spaces underneath wood subfloors shall be in compliance with local building code ventilation practices and have clearance of at least 18" of cross-ventilated space between the ground level and joists
- Wood joists should be spaced on not more than 16" centers
- Place a moisture retarder, having a maximum rating of 1.0 perm, on the top of the ground under the wood subfloor overlapped at least 8"
- Use an Underlayment Grade plywood, minimum 3/8" thick, with a fully sanded face
- Use an APA approved exterior grade plywood if finished floors are subjected to moisture
- DO NOT use OSB, lauan, maranti, solid-core mahogany, waferboard, particleboard, chipboard, flakeboard, tempered hardboard, glass mesh mortar units or cementitious tile backer boards, sheathing-grade plywood
- Preservative-treated plywood and/or fire-retardant treated plywood are not recommended as some manufacturers may use resins or other adhesives in the manufacturing of the product that may cause discoloration or staining of the flooring
- Wood subfloor movement, flexing or instability will cause the flooring installed to release, buckle or become distorted
- DO NOT use plastic or resin filler to patch cracks
- DO NOT use cement or rosin coated nails/staples, or solvent-based construction adhesive to adhere the plywood
- DO NOT Install on a sleeper system, which is a wood subfloor system constructed over the top of concrete
- Installation directly over Sturd-I-Floor panels is not recommended

Terrazzo and Ceramic Floors

- Follow procedures outlined for Concrete substrates
- Ceramic tile must be solidly adhered and all loose tiles must be removed and repaired or replaced
- Ensure all glazed, sealed, smooth and/or shiny surfaces are properly sanded and cleaned

- Fill all grout lines and other irregularities with a Portland cement-based underlayment with a minimum compressive strength of 3000 PSI
- The subfloor must be structurally sound. Inspect and ensure there is an adequate bond of the old flooring to the original substrate
- Procedo will not warrant the product if there is a bond failure caused by problems relating to the old flooring

Metal Floors

- Metal floors to be used as subfloors/substrates must be thoroughly cleaned of any residue, oil, rust and/or oxidation and properly sanded/grinded to provide a smooth, level, clean substrate to receive the resilient flooring
- Install within 12 hours after sanding/grinding to prevent the metal flooring from re-oxidizing
- Metal subfloor shall be structurally sound
- Deflection of the metal floor can cause a bond failure between the adhesive and the metal substrate

Existing Flooring Products

Versa Quartz can be installed over existing Versa Quartz, VCT, VAT or Solid Vinyl Tiles under the following conditions

- Existing flooring is a single layer of material
- Existing flooring is free of all finishes and/or waxes
- Existing flooring adhesive is fully cured
- Existing flooring is fully bonded to the substrate
- Existing flooring is completely flat
- Existing flooring is skim coated with Portland Cement Based patching compound to fill all voids and/or cracks

DO NOT install Versa Quartz over Epoxy Terrazzo, Rubber, Cork or Asphalt Tiles

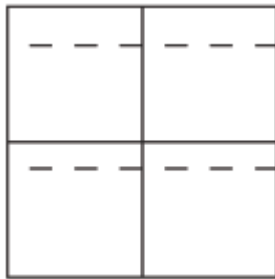
Expansion Joints

DO NOT install Versa Quartz over expansion joints, isolation joints or any other moving joints in concrete. These joints should not be filled with patching compound; these should be covered with a proper expansion joint covering system.

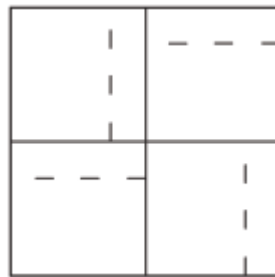
PRODUCT INSTALLATION

- Procedo recommends the use of Procedo labeled or recommended adhesives for the application of Versa Quartz
- If not using one of the listed adhesives it is the responsibility of the installer to ensure a proper adhesive is chosen for installation
- Adhesive related installation issues will be responsibility of the adhesive manufacturer chosen and not the responsibility of Procedo

Versa Quartz tiles feature a visual directional shading effect that can be present due to the unique manufacturing process. There are directional markings on the back of each tile that must be aligned according to one of the two diagrams that follow, depending upon chosen orientation.



Monolithic / Directional Design



Checkerboard / Quarter-Turn Design

- Sweep and/or vacuum the substrate to prepare to receive the adhesive; if using the PRO610 Spray Adhesive, it is recommended to use a damp mop prior to application of adhesive
- Determine layout of room to ensure equal tile sizes around the perimeter of the room
- Square the room using the 3-4-5 squaring rule or similar method to ensure acceptable installation

- Dry lay several tiles to ensure the best layout for the space for installation
- Apply adhesive according to instructions for specific product in use with the proper trowel listed; if using a trowelable adhesive, ensure fresh trowels are employed to maintain proper trowel ridges
- Tiles should be placed into the adhesive while still wet but tacky. This adhesive is not a pressure sensitive adhesive. Allow the valleys of the adhesive to dry clear and then place the tiles
- Lay tiles following the standard point-to-point installation method unless designed otherwise
- Use a pyramid layout when installing tiles to eliminate run-off
- Lay tiles from one box before moving to another, do not mix boxes or pallets if possible
- Roll the tile into the adhesive bed within thirty (30) minutes of installation with a 3-section, 100 Lb roller and then cross roll in a perpendicular direction
- Clean excessive adhesive or adhesive from the surface of the tile with a white cloth with a solution of warm water and a mild detergent

HEAT WELDING AFTER INSTALLATION (If Required)

- Allow adhesive to properly cure prior to heat welding
- Protect all seams from dirt, topical moisture and cleaning of any kind
- Groove the material with an electric grooving machine with the blade set to cut the groove approximately 2/3rds of the total thickness of the tile or .066". During the grooving process, ensure approximately 50% of material is equally removed from each side of the adjoining pieces. Practice on a piece of scrap tile to obtain the proper depth and location
- It may be necessary to hand groove some of the seams using a hand grooving tool with a narrow blade near the walls or other obstacles
- Maintain all materials prior to and during installation between 65° F (19° C) and 85° F (30° C)

- While grooving, pre-heat the welding gun as recommended by the manufacturer. After the grooving is completed use a hot air welding gun, insert the welding bead through the opening of the 4mm welding tip into the center of the routed groove in the flooring. Practice the welding technique by using a piece of scrap tile to determine the temperature setting of the heat gun and welding speed to achieve a successful bond
- You can see the tile and bead flowing together while welding if the settings are correct. Welding too slowly may char or burn the tile. An excessive welding speed will not allow the bead and tile to reach the proper temperature for a successful bond
- Ensure sufficient downward pressure is applied to fill the groove
- Work with seams in one direction at a time, cut a “V” groove in installed bead at tile intersections, and then complete the procedure in opposite direction
- Allow the welding bead to completely cool and trim the excess bead with a clean, sharp quarter moon spatula knife (or other trimming tool) with an attached clean, trim plate
- After one hour, perform a second trim using only the quarter moon spatula knife (or other trimming tool) to create a smooth, level surface.

If the heat welded seam is trimmed before it is completely cold, and/or, if the seam is first cut with only the quarter moon spatula knife (or other trimming tool) without trim the trim plate, a concave skive can result. This can allow particulate and liquids to pool in the seam. After trimming, carefully glazing the surface of the heat welded seam with the hot air from the gun will smooth out any imperfections.

AFTER INSTALLATION

- Cover newly installed flooring with construction grade paper or protective boards such as masonite to protect flooring from damage by other trades
- DO NOT slide or drag pallets or heavy equipment across the new flooring
- Eliminate foot traffic according to the following adhesive requirements
 - PRO610 Spray Adhesive
 - Foot Traffic – Immediate
 - Rolling Traffic - Immediate
 - Maintenance – 48 Hours
 - PRO620 Acrylic Adhesive
 - Foot Traffic – 12 Hours
 - Rolling Traffic – 48 Hours
 - Maintenance – 72 Hours

FLOOR PROTECTION DEVICES

- When moving in appliances or heavy furniture, it is always wise to protect the floor from scuffing and tears by using something to protect the floor
- Use floor protectors under furniture or fixtures to reduce indentation; as a rule of thumb, the heavier the item the wider the floor protection device needed
- Place walk-off mats at outside entrances manufactured with non-staining backs to prevent discoloration