

Technical Tip

Ceramic Tile over AdvanTech® Flooring Spaced at 24" oc

AdvanTech flooring is an acceptable substrate for ceramic tile. The following steps outline the construction sequence for the AdvanTech flooring and ceramic tile with supports at 24" oc per the Tile Council of America Handbook for Ceramic Tile Installation.

Step 1: AdvanTech flooring installation

- Joists spaced a maximum 24" o.c. using a deflection criteria of L/360.
- Minimum panel thickness is 1-1/8".
- Install panels with long dimension perpendicular to supports.
- Apply a continuous 1/4" bead of construction adhesive to joists. Apply a small amount of adhesive to groove prior to matching tongue of adjacent panel. Use only polyurethane or solvent-based adhesives which conform to industry standard AFG-01 or ASTM D 3498.
- Use 10d ring shank, screw shank or common nails for thicker panels. Fasteners should penetrate the framing member at least 1". Space fasteners no greater than 6" o.c. at supported ends and no greater than 12" o.c. at intermediate supports.
- Provide 1/8" expansion gap at 4-foot ends. T&G joint is self-spacing.
- Ensure panels are dry, clean and free of dirt, dust and oily film prior to gypsum concrete installation.



FORCING T&G EDGES TO FIT TIGHTLY TOGETHER CAN DAMAGE THE PANELS AND VOID THE WARRANTY. T&G EDGES ARE DESIGNED TO FIT TOGETHER EASILY WHILE PROVIDING THE INDUSTRY STANDARD 1/8" GAP BETWEEN PANELS.



Correct installation of Advantech T&G Edge

Step 2: Underlayment Installation

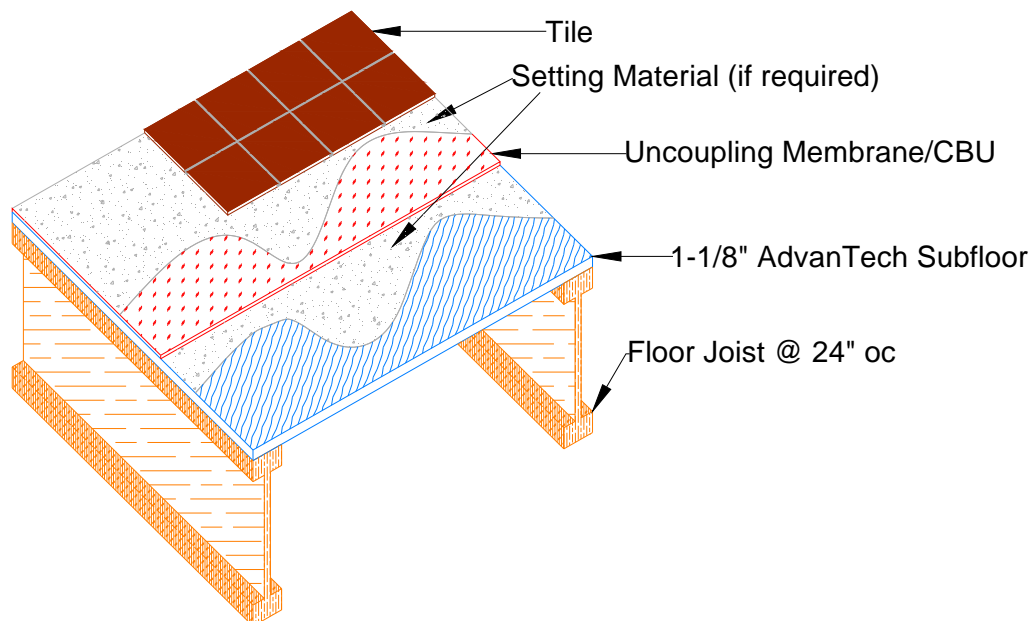
- The type of underlayment to be used is the decision of the home owner or general contractor. The decision should be based on the type of floor construction present and size of tile being used. Various types of acceptable underlayment exist including cement backer board and rubber membranes. Refer to the Tile Council of America Handbook for Ceramic Tile Installation for suitable underlayment to be used in conjunction with structural panel substrates at corresponding support spacing.

Uncoupling Membrane

- These steps will cover the installation of an uncoupling membrane tile underlayment (Schluter®-Ditra)
- Sand any areas of the AdvanTech flooring that maybe uneven to ensure levelness. Vacuum all dust and debris. A commercial drum sander can be used to sand larger areas.
- Apply layer of modified thin-set mortar and install membrane according to membrane manufacturers' recommendations.

Cement/Fiber Cement Backer Unit (CBU)

- These steps will cover the installation of the following 3 approved underlayment on top of AdvanTech subflooring.
 1. Cement backer board (Durock®, Wonderboard®, and PermaBase®)
 2. Fiber cement backer board (Fiberock® and HardieBacker®)
 3. Embedded glass reinforced gypsum tile backer board (DensShield®, DensGuard®, and GlasRoc®)
- Sand any areas of the AdvanTech flooring that maybe uneven to ensure levelness. Vacuum all dust and debris. A commercial drum sander can be used to sand larger areas.
- Apply layer of modified thin-set mortar and install CBU according to CBU manufacturers' recommendation over the AdvanTech subflooring.




Section with Ceramic Tile installed over 1-1/8" AdvanTech subflooring



Step 3: Ceramic Tile Installation

- Apply a layer of thin-set mortar to the underlayment in straight beads using the appropriate trowel. Try to avoid making curved strokes.
- Different grades of thin-set mortar exist. Use what is specified by the method used in the Tile Council of America Handbook and what is recommended by the underlayment manufacturer.
- Install tile per manufacturer's instructions.
- Refer to the latest Tile Council of America Handbook for Ceramic Tile Installation for acceptable methods of installing ceramic tile on structural panel substrates.

*  **CAUTION:** We do not recommend using water sealers with AdvanTech®, as they may trap moisture in the panel and void the warranty.

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