

Natural Stone Tile with Underlayment over AdvanTech® Subflooring

AdvanTech subflooring is an excellent substrate for a variety of floor coverings including natural stone tile. The following steps outline the construction sequence for natural stone tile installation with two layers of AdvanTech subflooring. Refer to The Tile Council of North America (TCNA) for Installation on specific tile installation information. Please note, when using the two-layer subfloor approach for natural stone tile a minimum 23/32" AdvanTech subflooring panel and a minimum 15/32" underlayment over a span not greater than 16" on center.



Step 1: AdvanTech Subflooring Installation

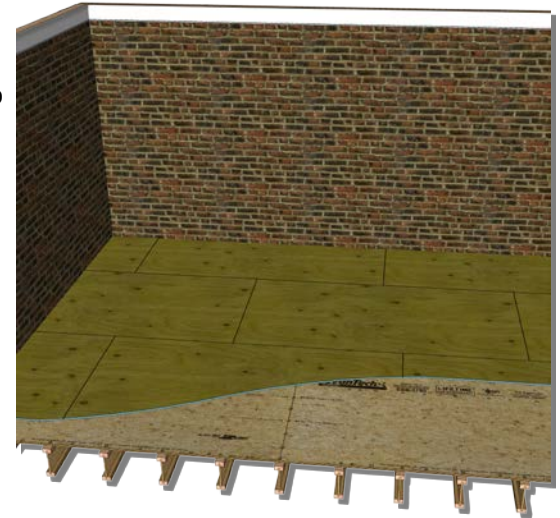


- Joists spaced a maximum 16" o.c.
- Minimum panel thickness is 23/32".
- Install panels with long dimension perpendicular to supports.
- Apply a continuous 1/4" bead of construction adhesive to joists. Use only polyurethane or solvent-based adhesive which conform to industry standard AFG-01 or ASTM D 3498.
- Although code allows the use of 8d common nails, it is recommended to use 8d ring shank, screw shank or minimum #8 deck screws. 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 in the field.
- 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 natural stone tile installation

Step 2: AdvanTech as the First Layer Underlayment Installation

Prior to installing the second AdvanTech layer, it is important to check the subfloor for movement or squeaks and re-fasten as necessary. The second layer should also be installed perpendicular to the floor joists.

- Minimum panel thickness is 15/32".
- First layer must be dry prior to laying the second layer.
- OPTIONAL: Place a layer of 15-lb felt on top of the subflooring prior to installing second layer.
- Adhesives should not be used to fasten the two layers together.
- Install second layer on top of the first layer inside of the wall studs. A minimum 1/4" gap is required between the second layer and wall perimeter.
- All underlayment (second layer) joints should be offset from the subfloor (first layer) joints a minimum of 4-inches.
- Stagger end joints of adjacent panel runs by at least one joist space.
- Provide 1/8" expansion gap at 4-foot ends. T&G joint is self-spacing.



Fasten top layer using wood screws of sufficient length to just penetrate the thickness of the subfloor. **Do not screw second layer to floor joists.**

Note: Huber Engineered Woods does not provide load carrying capacities of multi-layer systems. A professional designer should be engaged to determine the adequacy of multi-layer assemblies.



Step 3: Second Layer Underlayment Installation

Refer to the TCNA for natural stone tile installation for suitable underlayments to be used in conjunction with structural panel substrates at corresponding support spacing.

Cement/Fiber Cement Backer Unit (CBU)

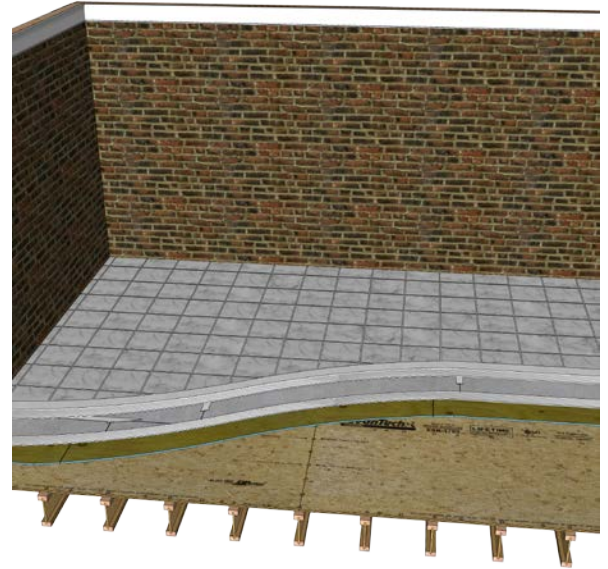
These steps will cover the installation of a cement backer board underlayment on top of AdvanTech subflooring.

- Sand any areas of the AdvanTech flooring that may be uneven to ensure flatness. 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.

Step 4: Natural Stone 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. For best results follow the recommendations of the TCNA Handbook and follow the recommendations of the underlayment manufacturer.
- Install tile per manufacturer's instructions.
- Refer to the latest edition of the TCNA Handbook for acceptable methods of installing natural stone tile on an AdvanTech substrate.

Note: Do not install natural stone tile directly to AdvanTech subfloor panels. An approved underlayment must be installed over AdvanTech subfloor panels prior to natural stone tile installation. Refer to the TCNA for more on natural stone tile installation.



For more information on natural stone tile flooring and other floor coverings installed over AdvanTech, contact Huber Engineered Woods Technical Division at 800-933-9220.