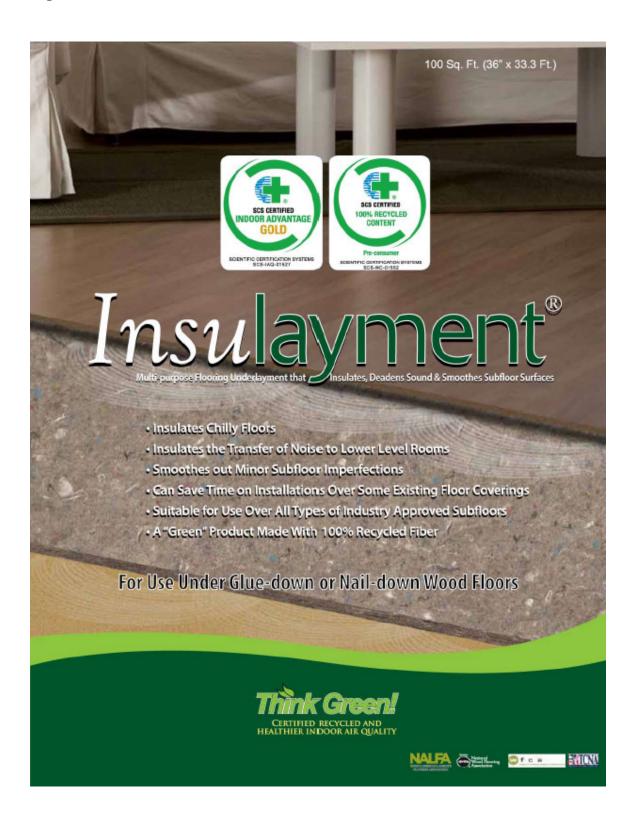
Insulayment®

INSTALLATION





Installation Instructions

- 1. Conditioning: The underlayment and adhesives must be conditioned at 70 degrees Fahrenheit with the relative humidity between 25 and 65% for at least 24 hrs before and 72 hrs after installation.
- 2. Approved Surfaces for Applications:
 - A. For Glued Down Engineered and Solid Wood Floors: Plywood, hardboard underlayment, association grade particleboard, concrete above grade in the absence of excessive moisture and/or excessive alkali, and well-bonded VCT* and sheet vinyl* (non-embossed and non-cushioned). Sub-floor must meet NWFA (National Hardwood Flooring Association) and local building code standards for quality, thickness, and maximum deflection.
 - B. For Mechanically Fastened Solid or Engineered Wood Floors: Hardboard underlayment, concrete backer board, plywood or wood. Sub-floor must meet NWFA (National Hardwood Flooring Association) and local building code standards for quality, thickness, and maximum deflection.
 - C. For 8" or larger Ceramic or Porcelain Tile (not designed for natural stone): All installations must comply with the American National Standards ANSI A-108 unless otherwise noted. Plywood, concrete backer board, concrete (with moisture vapor emission rate of less than 5lbs/1000sqft/24hrs and pH less than 9), and well bonded VCT or Sheet Vinyl* (non-embossed and non-cushioned). All sub-floor structures must meet or exceed ANSI standards for quality, thickness, and maximum deflection. The sub-floor must also comply with local building codes.
 - D. Unsuitable substrates for ceramic tile: The following is a list of sub-floor surfaces not suitable for ceramic tile installations: masonite, all grades of lauan plywood, expanded polystyrene (styrofoam) insulation board, particle board, paneling, stripwood floors, grease-saturated concrete, vertically displaced concrete, sheathing and/or other oriented strand board, pressure-treated plywood, fire-resistant plywood, curing compounds, felt paper and scribing felt.

*Sheet Vinyl or VCT:

- If at all possible, remove the old sheet vinyl or VCT. It is almost always a better choice to install over the original sub-floor surface. Make sure you comply
 with all codes and use safe work practices as published by the Resilient Floorcovering Institute when removing vinyl floor coverings and adhesives.
- Wood underlayments that are structurally suitable for vinyl may not be sutable for ceramic tile or wood floors. Verify that wood floor assembly meets requirements for ceramic tile installations under Tile Council of America (TCA) and America National Standards Institute (ANSI) guidelines.
- The vinyl must be well adhered to the underlayment throughout the entire floor.
- Make sure the mortar or adhesive is approved for use on vinyl.
- · Allow additional drying or "set" time (at least twice the manufacturer's recommendation) for the setting material used in each phase of the installation.
- 3. Surface preparation: Floor must be clean, smooth, dry and free of foreign matter that would interfere with a good bond. Fill all cracks and depressions with a suitable floor patch. If adhesive removal chemicals have been used, make sure the floor has been properly rinsed and all chemical residues are removed. All existing cracks in excess of 1/16" must be repaired with appropriate materials.
- 4. Moisture: All sub-floor assemblies should be tested for moisture vapor emission rates by utilizing anhydrous calcium chloride test kits for concrete or a certified moisture meter for wood. Do not install flooring material when in excess of flooring manufacturers recommendations for moisture vapor emissions.

Method #1: Glued-Down Engineered and Solid Wood Floors on Concrete Sub-Floor

Setting Material:

 Use only wood flooring adhesive approved by the flooring material manufacturer below and above the Insulayment.

Trowel Size:

3/16" x 3/16" Square-notch or U-notch

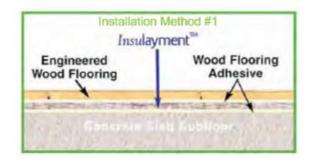
Sub-Floor Requirements:

- Maximum 1/4" variance in 10'.
- Must be properly prepared per NWFA specifications.
- All cracks in excess of 1/16" must be filled.
- · Surface must be clean, dry and free of contaminants and sealers.

Installing Insulayment:

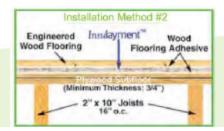
- Roll the Insulayment out and trim to fit the floor using a sharp utility knife and a straight edge.
- Be sure to run the Insulayment to the edges of the perimeter leaving no gaps.
- 3. Pull back the pre-cut cut pieces.
- 4. Apply adhesive to the subfloor as per manufacturers instructions.
- 5. Unroll the Insulayment into the adhesive.
- 6. Immediately (within 10 minutes) roll the Insulayment with a 75lb roller in diagonal directions.
- 7. Do not walk on the rolled areas.
- 8. Seams should be butted together, leaving no gaps or overlaps.
- 9. Allow set time as per adhesive manufacturers instructions.

Flooring Material Installation: Install flooring material as per flooring manufacturers and NWFA recommendations.





Method #2: Glued-Down Engineered and Solid Wood Floors on Plywood Sub-Floor



Setting Material: (Same as Method #1)

Trowel Size: (Same as Method #1)

Sub-floor Requirements:

- Must comply with NWFA sub-floor requirements.
- · Sub-floor must be structurally sound and free from contaminants and sealers.
- Minimum variation of 1/4" in 10', with a 16" on center joist system.

Installing Insulayment: (Same as Method #1)

Flooring Material Installation: (Same as Method #1)

Method #3: Mechanically Fastened Solid and Engineered Wood Floors

Not recommended under naildown applications where wood flooring is less than 3/8" thick or less than 3" wide.

Sub-floor Requirements:

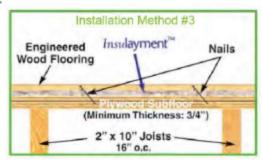
- · Must comply with NWFA sub-floor requirements.
- Sub-floor must be structurally sound and free from contaminants and sealers.
- Minimum variation of 1/4" in 10', with a 16" on center joist system.

Installing Insulayment:

- Roll the Insulayment out and trim to fit the floor using a sharp utility knife and a straight edge.
- 2. Be sure to run the Insulayment to the edges of the perimeter leaving no gaps.
- 3. Seams should be butted together leaving no gaps or overlaps.
- Taping the Insulayment seams with duct tape should not be necessary, but is not prohibited.

Flooring Material Installation:

- Install flooring as per flooring manufacturer and NWFA recommendations.
- 2. Nail through the Insulayment system to the joist system.
- Use the maximum length nails approved by the wood floor manufacturer.



Method #4: Insulayment in a Free Floating Plywood Underlayment Installation

Insulayment may be added as an isolation barrier to a free-floating plywood underlayment installation. A free-floating plywood installation consists of 2 layers of 1/2" minimum plywood glued and screwed together, but not attached to the sub-floor.

- 1. Sub-floor must comply with American Plywood Association (APA) standards.
- 2. Roll the Insulayment out and trim to fit the floor using a sharp utility knife and a straight edge.
- 3. Be sure to run the Insulayment to the edges of the perimeter leaving no gaps.
- Seams should be butted together leaving no gaps or overlaps.
- Tape the Insulayment seams with duct tape or polyethylene tape.
- Install free-floating plywood underlayment as per APA recommendations.
- 7. Install the finish floor covering as per industry standards.



Insulayment®

INSTALLATION

Installation Method #5

Grout

Ceramic Tile

Insulayment"

Thin Set

Method #5: Ceramic or Porcelain floor tile (8" or larger) on concrete sub-floor

Setting Materials:

- Use Latex Portland cement mortar that conforms to test requirements found in ANSI A118.4 or 118.11.
- Hydrate (mix with water) according to the bag recommendations.
- Use a slow mixer (300rpm or less) or mix by hand.
- Allow mixture to slake per manufacturers instructions and then lightly remix.
- · Mix epoxy grout as per manufacturers instructions.
- Use epoxy grout as per ANSI A108.4.3.0 or ANSI A108.6.3.0 or ANSI A108.9.3.0

Trowel Size:

- Insulayment to sub-floor: 1/4"x1/4"x1/4" Square or "U" notch.
- Tile to Insulayment: Use a square or "U" notch trowel with notch size appropriate for the size and type of tile installed and required to achieve 95% coverage. (Minimum 1/4"x3/8"x1/4")

Concrete Requirements:

- Maximum variation of 1/4" in 10'-0". Deflection is not to exceed 1/360 of span.
- All cracks in excess of 1/16" must be repaired with appropriate materials.
- Surface must be clean, dry and free of contaminants and sealers.
- Lightweight concrete surfaces must comply with manufacturers specifications for ceramic tile installations including minimum compressive strength and application of primer/sealer.

Installing Insulayment:

- 1. Roll the Insulayment out and trim to fit the floor using a sharp utility knife and a straight edge.
- 2. Be sure to run the Insulayment to the edges of the perimeter leaving no gaps.
- 3. Pull back the pre-cut pieces.
- 4. Dampen, but do not saturate, the concrete floor and the bottom side of the pre-cut insulayment pad with a sponge or a mist sprayer.
- Key the thin-set mortar into the sub-floor with the flat side of the trowel then comb it with the notched side using a left to right motion.
- Apply the thin-set mortar only as far ahead as will allow installation of the Insulayment prior to the mortar beginning to set or "skin over".
- Unroll the Insulayment into the thin-set.
- Immediately (within 10 minutes) roll the Insulayment with a 75lb roller in diagonal directions.
- Do not walk on the rolled areas for at least 16hrs. Allowing traffic on the installed Insulayment prior to full set may cause indentations resulting in weak areas and hollow spots.
- Make sure there is at least 95% transfer of the thin-set.
- 11. Seams should be butted together, leaving no gaps or overlaps.
- 12. Allow the Insulayment to set for at least 16 hrs.

continued...

Product Description: Insulayment™ Underlayment is approved for use in glue-down or nail-down engineered and solid wood floor applications and ceramic or porcelain floor tile installations.

Setting Tile

- Dampen, but do not saturate, the Insulayment with a sponge or mist sprayer prior to thin-set application.
- Use a square or "U" notch trowel size that is appropriate for the size of tile. (Minimum 1/4" x 3/8" x 1/4") and required to achieve 95% coverage
- 3. Use Latex Portland cement mortar that conforms to test requirements found in ANSI A118.4 or 118.11.
- 4. Key the thin-set into the Insulayment with the flat side of the trowel and then comb it with the notched side using a left to right motion.
- Press the tile into the thin-set using a front to back motion perpendicular to the spread of the thin-set for maximum transfer of the thinset onto the tile
- Mortar average coverage per tile shall comply with ANSI A108.5.3.3.3, which requires, 1) the backbuttering of each tile, 2) at least 95% thin-set coverage on each tile.
- 7. Minimum grout joint width is 3/16".
- 8. Allow no traffic on the tiled surface for at least 16hrs.
- 9. Use epoxy grout as per manufacturers instructions.



Installation Method #6

Grout

(Minimum Thickness: 3/4

2" x 10" Joists 16" o.c.

Insulayment"

EGP, Mortar

Method #6: Ceramic or Porcelain on Plywood Sub-floor

Setting Materials:

- For Insulayment to sub-floor: use EGP (Exterior Glue Plywood) Latex Portland Cement Mortar that conforms to ANSI A118.11.
- For Tile to Insulayment: use Latex Portland Cement Mortar that conforms to ANSI A118.4 or 118.11.
- · Mix epoxy grout as per manufacturers instructions
- Use epoxy grout meeting ANSI A118.3.

Trowel Size:

- · Pad to sub-floor: 1/4" x 1/4" x 1/4" Square or "U" notch.
- Tile to Insulayment: Use a square or "U" notch trowel with notch size appropriate for the size and type of tile installed. Required to acheive 95% coverage (Minimum 1/4"x3/8"x1/4")

Sub-Floor Requirements:

- Sub-floor assembly must comply with ANSI requirements.
- 16"oc, 2"x10" minimum joist: total sub-floor thickness 1 1/8" with clean structurally sound exterior plywood as the top surface.
- 24"oc truss or I-joist: total sub-floor thickness 1 1/2" with clean structurally sound underlayment grade plywood as the top surface.
- Must be free of all sealers and contaminants.
- Maximum variation of 1/4" in 10'.
- Deflection is not to exceed 1/360 of span when measured under 300lb concentrated load (see ASTM C627).

Installing Insulayment: (Same as Installation Method #5)

Setting Tile: (Same as Installation Method #5)

(see ASTM C627).

Ceramic Tile

Method #7: Ceramic Tile or Porcelain (8" or larger) on Plywood with Backer Board

Installing Insulayment:

 Follow instructions for installing Insulayment as per Method #5, including setting materials and towel size.

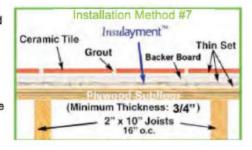
Sub-Floor Requirements:

- 16"oc, 2"x10" minimum joist: Min. 3/4" clean, structurally sound exterior plywood.
- 24"oc truss or I-joist: Min. 1 1/8" clean, structurally sound exterior plywood.
- · Must be free of all sealers and contaminants.
- · Maximum variation of 1/4" in 10'.
- Deflection is not to exceed 1/360 of span when measured under 300lb concentrated load (see ASTM C627).

Backer Board Requirements: Backer board shall conform to ANSI requirements.

Installing Backer Board: Install backer board in accordance with ANSI requirements.

Setting Tile: (Same as Installation Method #5)



For Installations not covered in these directions, consult BuildDirect before installation.

Installations not performed within stated manner may void all warranties.