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Radiantmax Overfloor System Floor Goods Guide

Overfloor Installation – Tile

Photo provided by National Gypsum Co.

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Overfloor Installation – Tile

1. At the open loop ends, sand mix may be applied to fill-in the space.
2. Install an approved cement or fiber-cement tile backer board with a minimum thickness of ¼” over the Overfloor system. The board should be glued and nailed or screwed down to prevent separation. Make sure to note the tube pattern prior to attaching to prevent puncturing the tubing.
3. Tile should be applied according to manufacturers recommendations.

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Overfloor Installation – Tile

- Recommended backer brands:
  - Durock - USG
  - Hardibacker – James Hardie
  - Diamondback Tile Backer - CertainTeed

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Overfloor Installation – Hardwood Glue Down

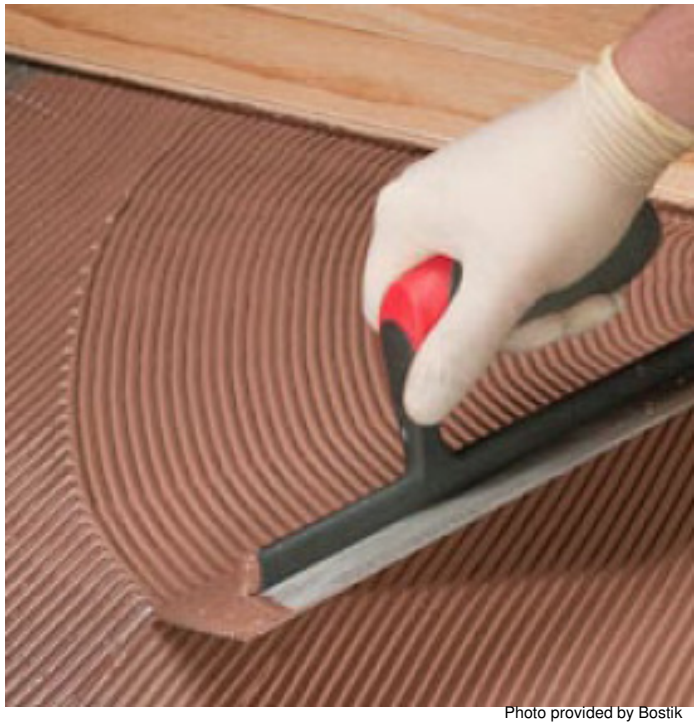

Photo provided by Bostik

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Overfloor Installation – Hardwood Glue Down

Hardwood floors - some of the best installers are using a glue down system for installing hardwood floors. A glue down system eliminates all the shrinkage gaps caused by nailing down the strips to the subfloor. Bostik's elastomeric adhesives are an example of a product used to install using a glue down hardwood floor.
http://www.bostik-us.com

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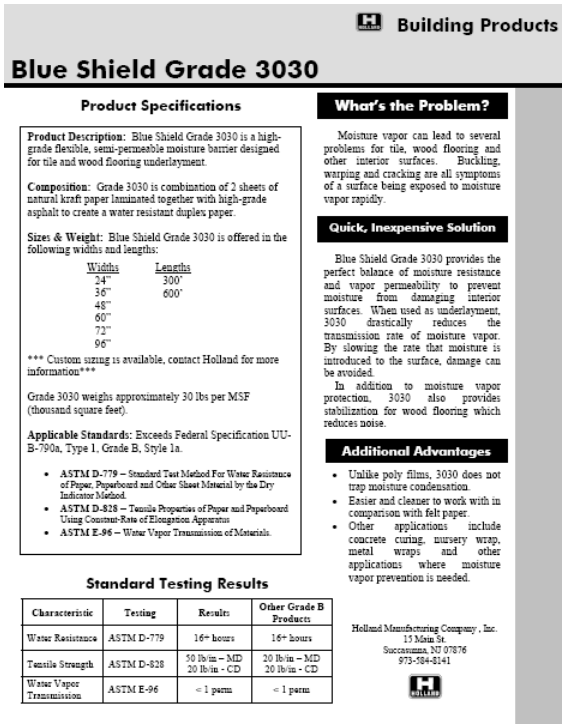
Overfloor Installation – Hardwood Nail Down



Building Products

Blue Shield Grade 3030

Product Specifications

Product Description: Blue Shield Grade 3030 is a high-grade flexible, semi-permeable moisture barrier designed for tile and wood flooring underlayment.

Composition: Grade 3030 is combination of 2 sheets of natural kraft paper laminated together with high-grade asphalt to create a water resistant duplex paper.

Sizes & Weight: Blue Shield Grade 3030 is offered in the following widths and lengths:

Widths	Lengths
24"	300'
36"	600'
48"	
60"	
72"	
96"	

*** Custom sizing is available, contact Holland for more information***

Grade 3030 weighs approximately 30 lbs per MSF (thousand square feet).

Applicable Standards: Exceeds Federal Specification UU-B-790a, Type 1, Grade B, Style 1a.

- ASTM D-779 – Standard Test Method For Water Resistance of Paper, Paperboard and Other Sheet Material by the Dry Indicator Method.
- ASTM D-828 – Tensile Properties of Paper and Paperboard Using Constant-Rate of Elongation Apparatus
- ASTM E-96 – Water Vapor Transmission of Materials.

Standard Testing Results

Characteristic	Testing	Results	Other Grade B Products
Water Resistance	ASTM D-779	16+ hours	16+ hours
Tensile Strength	ASTM D-828	50 lb/in – MD 20 lb/in - CD	20 lb/in – MD 20 lb/in - CD
Water Vapor Transmission	ASTM E-96	< 1 perm	< 1 perm

What's the Problem?

Moisture vapor can lead to several problems for tile, wood flooring and other interior surfaces. Buckling, warping and cracking are all symptoms of a surface being exposed to moisture vapor rapidly.

Quick, Inexpensive Solution

Blue Shield Grade 3030 provides the perfect balance of moisture resistance and vapor permeability to prevent moisture from damaging interior surfaces. When used as underlayment, 3030 drastically reduces the transmission rate of moisture vapor. By slowing the rate that moisture is introduced to the surface, damage can be avoided.

In addition to moisture vapor protection, 3030 also provides stabilization for wood flooring which reduces noise.

Additional Advantages

- Unlike poly films, 3030 does not trap moisture condensation.
- Easier and cleaner to work with in comparison with felt paper.
- Other applications include concrete curing, nursery wrap, metal wraps and other applications where moisture vapor prevention is needed.

Holland Manufacturing Company , Inc.
15 Main St.
Succasunna, NJ 07876
973-584-8141

Hollandmfg.com

Hardwood floor installations should use a permeable moisture barrier under the wood. Red rosin paper or standard asphalt felt paper don't work well. A product such as Blue Shield 3030 works well if you aren't using a glue down application. http://www.hollandmfg.com/index1.htm

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Overfloor Installation – Hardwood Nail Down

- Nail down applications should use a moisture barrier to prevent moisture from coming up from below into the unsealed wood.
- Be sure to carefully mark the tubing pattern on the barrier once it has been laid to prevent nailing into a tube.

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Overfloor Installation – Carpet

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Overfloor Installation – Carpet

1. Install 1/4” underlayment over the top of the Overfloor system.
2. Install a low R-value pad – see chart
3. Carpeting should be applied according to manufacturers recommendations.

CARPET THICKNESS	R-Value
1/8"	R-0.6
1/4"	R-1.0
1/2"	R-1.4
3/4"	R-1.8
1"	R-2.2

approximate R-Value of synthetic carpet. For wool carpets multiply R-Value by 1.5

Cushion Density	Thickness	
GROUP ONE		
Prime Urethane 2.2 lb/cu ft	1/4"	R-1.0
	3/8"	R-1.62
	1/2"	R-2.15
Bonded Urethane 4-8 lb/cu ft		1/4"
	3/8"	R-1.57
	1/2"	R2.09
GROUP TWO		
Fiber/Hair/Jute 6-8 lb/cu ft	1/4"	R-0.9
	3/8"	R-1.46
	1/2"	R-1.94
Waffle Rubber 25 lb/cu ft	1/4"	R-0.6
	3/8"	R-1.00
	1/2"	R-1.33
Slab Foam Rubber 33 lb/cu ft		1/4"
	3/8"	R-0.47
	1/2"	R-0.62

Note: All R-values listed are approximate. Che supplier for actual values.

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Overfloor Installation – Carpet

Cushion Density	Thickness	R-value
GROUP ONE		
Prime Urethane 2.2 lb/cu ft		
	1/4"	R-1.08
	3/8"	R-1.62
	1/2"	R-2.15
Bonded Urethane 4-8 lb/cu ft		
	1/4"	R-1.05
	3/8"	R-1.57
	1/2"	R2.09
GROUP TWO		
Fiber/Hair/Jute 6-8 lb/cu ft		
	1/4"	R-0.97
	3/8"	R-1.46
	1/2"	R-1.94
Waffle Rubber 25 lb/cu ft		
	1/4"	R-0.62
	3/8"	R-1.00
	1/2"	R-1.33
Slab Foam Rubber 33 lb/cu ft		
	1/4"	R-0.31
	3/8"	R-0.47
	1/2"	R-0.62

Note: All R-values listed are approximate. Check with product supplier for actual values.

CARPET THICKNESS	R-Value
1/8"	R-0.6
1/4"	R-1.0
1/2"	R-1.4
3/4"	R-1.8
1"	R-2.2

approximate R-Value of synthetic carpet. For wool carpets multiply R-Value by 1.5

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If you have any questions, please contact Eagle Mountain at 585-412-4245 for more information