

Technical Service Bulletin #3 v1.2

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RE: Using underlayment for nail down installation in wood frame construction.

The purpose of this bulletin is to provide information regarding what Superior Flooring considers acceptable underlayment for our solid hardwood and engineered hardwood flooring when it is installed over 5/8" (16mm) plywood or 23/32" (18mm) OSB or equivalent.

The right underlayment maintains the integrity and warranty of your floor.

The purpose of vapor retarding underlayment is to slow down the transfer of moisture going through the subfloor and into the hardwood flooring. No underlay will ever prevent moisture transfer. By slowing down the moisture transfer, a lot of moisture related issues can be avoided because the wood can absorb and release moisture at a rate that avoids damage to the flooring. Because the top side of each board is sealed with finish, rapid changes in moisture on the bottom side will cause issues with hardwood flooring. These issues include but are not limited to:

- Crowning
- Gapping
- Cupping
- Dry Cupping
- Squeaking
- Mold

It is always a good idea to use proper underlayment between the subfloor and flooring, but it is exceptionally important when:

- The subfloor is over a crawlspace
- The subfloor is over a basement
- The house is a new construction home

Superior Flooring recommends 2 different types of underlayment to control the transfer of moisture.

1. Silicone impregnated paper. E.g. *Roberts Silicone Vapor Shield* or *All Globe Silicone Vapor Shield*.
2. Laminated Kraft paper and asphalt. E.g. *Fortifiber Aquabar "B" Barrier Paper*

If other products are chosen, the specifications are as follows:

Water vapor transmission [WVT] ≤ 0.6 lb. / 1,000 sq. ft. / 24 hr.

The thickness of the vapor retardant should not exceed 0.5 mm [non-compressible material].

Regardless of whether a vapor retardant is used, Superior Flooring requires that the humidity in the house remains between 35 and 50% for our Solid and 30 to 65 % for our Engineered and Enhanced to comply with our warranty.

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Superior Hardwood Flooring by HSL