

# Enercept Technical Bulletin #11a

Created: 12/30/20 Revised: 12/30/20



## DRYING POTENTIAL OF SIP ROOF ASSEMBLIES

The long-term performance and durability of Enercept SIP roof assemblies is dependent on the roof assembly's ability to dry to the side to which it gets wet. SIPs have low permeability, which means that they cannot dry through the thickness of the SIP.

Vapor permeable underlayment installed on the exterior side of the Enercept roof panels provide the ability for the OSB to dry to the exterior side of the panels should the OSB get wet during the life of the building. An example of a vapor permeable underlayment is GAF's Deck Armor product. <https://www.gaf.com/en-us/products/deck-armor>

The addition of a vented ridge cap is also a prudent detail. The vented ridge cap provides an escape path for moisture that may work its way into the roof assembly on the exterior side.

Enercept details of roof panel joints describe the use of sealant and SIP tape to mitigate air flow through the panel joints. The SIP tape is applied on the interior side of the panels in climate zones 5, 6, 7, 8. The use of SIP tape over the panel joints meets the building code requirements of a vapor retarder for the assembly.

If construction sequencing or detailing of the roof assembly does not allow the use of SIP tape at the panel joints, the use of a low perm material over the surface of the SIP panels is **highly discouraged** because of the low permeability of the SIP panels. Should moisture work its way between the OSB and a low permeable membrane, like a 6-mil polyethylene sheathing, drying will not occur.

The use of an air barrier may be warranted in these situations. Properly detailed and installed air barriers will reduce or eliminate air movement through the roof assembly mitigating moisture issues due to air transport. For more information regarding the use of air barrier's versus vapor barriers refer to Building Science Corporation website <https://www.buildingscience.com/>.

Enercept highly recommends that designers and builders consider detailing the roof assembly in a way which allows drying of the OSB to the side on which the OSB became wet.