

SUBJECT: EXTREME SIPS JOINT DETAILING

Extreme SIPs are a high-performance building envelope system. To provide maximum comfort, energy savings, and durability, Extreme SIPs must be installed in compliance with Extreme Panel Details. A key component of an Extreme SIPs building envelope is the proper use and application of SIPs Sealant, SIP Tape, and expanding foam sealants.

SIP SEALANT

Extreme's SIPs Sealant was specifically formulated for application in SIP installations and is the only recommended sealant product for all Extreme's SIP Sealant applications, including core, splines, wood plating, and internal wood members. Other adhesives or sealants have been shown to cause damage to the rigid insulation core or become brittle over time. Extreme's SIPs Sealant is compatible with EPS rigid insulation and will retain its flexibility. In addition, some products cannot be applied under damp or cold conditions. Extreme's SIP Sealant can be applied to damp surfaces, is water washout resistant, and can be applied at low temperatures. Importantly, Extreme's SIP Sealant prevents the passage of water vapor due to its low water vapor permeability.

Extreme's SIP Sealant must always be installed in a continuous unbroken line pattern and applied in the recommended bead size (3/8" diameter) and location to ensure contact is maintained with the core, splines, wood plating, and internal wood members. Please refer to the Extreme's SIP Sealant Details and the installation video demonstrating the proper application of Extreme's SIP Sealant, which can be viewed at www.extremepanel.com.

Failure to apply the sealant in a continuous pattern or maintain contact with adjacent materials will create paths for moisture vapor to pass through panel joints, causing potential moisture issues.

SIP TAPE

Extreme's SIP Tape was specifically formulated for application to Extreme SIPs. Extreme's SIP Tape is the only recommended tape product for installation on the surface of Extreme SIPs. Other tapes are often manufactured with asphalt adhesives, which are not suitable for use in interior environments.

Please refer to the Extreme's SIP Tape Details and Installation Video demonstrating the proper application of Extreme's SIP Tape, which can be viewed at www.extremepanel.com.

EXPANDING FOAM SEALANTS

Extreme Building Systems does not recommend the use of expanding foam sealants as a vapor retarder in the critical area of joint detailing between the SIP core, splines, wood plating, and internal wood members. Expanding foams become brittle as they age and can crack in tight margin areas such as SIP joints where expansion and contraction can occur.

Additionally, the field installation of expanding foam sealants can be challenging under typical construction site conditions such as cold or damp weather. The long-term volume stability and flexibility of foam sealants cannot be guaranteed. Field inspections of past foam sealant panel applications have shown that issues with expanding foam sealant performance can occur.

However, the use of low-expanding foam sealants is recommended for filling voids around electrical boxes and window and door openings. These applications take place in the controlled environment on the inside of a standing SIPs structure.