R-CONTROL SIPs

SIP No. 2050

Subject: **Cladding Systems**

Date: **November 2007 (Revised January 2015)**

R-Control SIPs are manufactured from 3 basic components:

1. Exposure I Rated OSB for the outer faces
2. Foam-Control EPS (Expanded Polystyrene) with Perform Guard foam for the core
3. Crosslinked exterior rated adhesives

The Foam-Control EPS core and the adhesives are capable of withstanding long term exposure to moisture. Thus, the exposure to moisture for the OSB is the key to the durability of an R-Control SIP.

Construction Issues:

Exposure I Rated OSB is designed for limited exposure to moisture that can occur during construction.

R-Control SIPs must be covered during storage to protect from exposure to rain, snow and other elements.

After installation, the R-Control SIPs should be covered with a secondary weather resistive system as soon as possible. This is required to protect the OSB from exposure to moisture long term.

Note: Installation of R-Control SIPs and the secondary weather resistive system should not occur during periods of heavy rain or snow.

Long term Issues:

Installation details must ensure that the OSB facings and other wood components of the SIP construction are not subjected to moisture over the life of the structure. Moisture exposure could be exterior by means of bulk water making its way through the siding system or from the interior of the structure in the form of water vapor. In order to manage these potential sources of moisture, proper detailing must be accomplished.

By following these key detailing considerations, the long term durability of R-Control SIPs is achieved:

1. Application of R-Control Low VOC Do-All-Ply at panel joints. R-Control Low VOC Do-All-Ply must always be installed in a sufficient amount and applied in a continuous unbroken fashion.

2. Proper use of SIP Tape or vapor retarders as required by R-Control SIP details.

3. Proper use of code recognized exterior weather resistive systems which must include both a primary AND secondary system. The cladding must provide a rain screen design which provides an avenue for water that penetrates the primary weather resistive system to drain from the wall.

   a. Vinyl, aluminum, cement and wood sidings are typical types of primary systems approved for use over R-Control SIPs. These systems MUST BE INSTALLED OVER SECONDARY SYSTEMS that are rated as weather resistant, such as building paper or house wrap products (i.e. Tyvek, housewrap, etc.).

   b. Stucco is another common type of primary system. Stucco must be applied over a secondary weather resistive system.

   c. Exterior Insulated Finish Systems (EIFS) can be applied over R-Control SIPs. For example, see Technical Bulletin sip no. 2045 for application of STO's system which includes a field applied secondary system.

4. Proper flashing and detailing of all window openings and penetrations. Ensure that the detailing of openings is consistent with forming a drainage plane which works in conjunction with the exterior weather resistive system.

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R-Control SIPs are made exclusively with Foam-Control EPS. R-Control SIPs and Foam-Control EPS are manufactured by AFM Corporation licensees.