PREMIER SIPs USED AS EXTERIOR WALLS

There are numerous opinions about which house wrap or felt, if any, to use on Premier SIPs wall panels. The purpose of this technical bulletin is to provide guidelines for the use of materials over the exterior of Premier SIPs wall panels.

Premier SIPs evaluation report states:

“The exterior face of wall panels are required to be covered with a wall covering, complying with the applicable code or recognized in a current ICC-ES evaluation report. A water-resistive barrier must be installed over the panels in accordance with IBC Section 1404.2, IRC Section R703.2, BNBC Section 1406.3.6, and UBC Section 1402, as applicable, prior to application of the wall covering. Where Portland cement plaster is used, compliance with IBC Sections 2510 and 2512, IRC Section R703.6.3 or UBC Section 2506.4, as applicable, is necessary. All exterior panel joints must be sealed with a compatible acrylic latex caulk.”

Premier SIPs recommends that a water resistive barrier, as recognized by ICC-ES, be installed over Premier SIPs used as exterior walls.

Current ICC-ES Report holders for water-resistive barriers can be obtained by visiting the ICC-ES website at www.icc-es.org and navigating to Evaluation Reports, CSI List, Section 0728 – Water-Resistive Barriers.

The 2006 versions of the IRC and the IBC have the following requirements.

The 2006 International Residential Code (IRC) requires the following:

SECTION R703 – EXTERIOR COVERING

R703.1 General: Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing as described in Section R703.8. The exterior wall envelope shall be designed and constructed in a manner that prevents the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer as required by Section R703.2 and a means of draining water that enters the assembly to the exterior. ....

R703.2 Water-resistive barrier: One layer of No. 15 asphalt felt, free from holes and breaks, complying with ASTM D226 for Type 1 felt or other approved water-resistive barrier shall be applied over studs or sheathing of all exterior walls......

The 2006 International Building Code (IBC) requires the following:

SECTION 1403 – PERFORMANCE REQUIREMENTS

1403.2 Weather protection: Exterior walls shall provide the building with a weather-resistant exterior wall envelope. The exterior wall envelope shall include flashing, as described in Section 1405.3. The exterior wall envelope shall be designed and constructed in such a
manner as to prevent the accumulation of water within the wall assembly by providing a water-resistant barrier behind the exterior veneer, as described in Section 1404.2, and a means for draining water that enters the assembly to the exterior. 

1404.2 Water-resistant barrier: A minimum of one layer of No. 15 asphalt felt, complying with ASTM D226 for Type 1 felt or other approved materials, shall be attached to the studs or sheathing, with flashing as described in Section 1405.3, in such a manner as to provide a continuous water-resistive barrier behind the exterior wall veneer.

The definition of a water-resistive barrier, from the IRC and the IBC is:

WATER-RESISTIVE BARRIER: A material behind an exterior wall covering that is intended to resist liquid water that has penetrated behind the exterior covering from further intruding into the exterior wall assembly.