



## ZIP System® Roof Sheathing Eliminates the Need for H-Clips and Felt Paper

I am writing to highlight the *2003 and 2006 International Building Code* requirements that relate to the use of H-clips for roof sheathing applications, corresponding load capacities (ICC ES ER-5637), and to address provisions contained in ICC ES ESR-1473, supporting the replacement of conventional roofing felt paper under shingles and other approved roof coverings.

### **2003 and 2006 International Building Code**

ZIP System roof panels are 1/2" thick and conform to the requirements of PS-2. Table 2304.7(3) of the IBC highlights the span rating, the panel thicknesses and the corresponding maximum span with and without edge support (H-clips or similar).

The IBC states that 1/2" thick, PS-2 panels that have a span rating of 32/16 can have an unsupported edge of 28". This means that 1/2" thick roofing panels that are supported by roof framing (rafters or trusses) spaced at 16" o.c., or 24" o.c., do not require edge support (H-clips). It should be noted that the maximum total load that can be applied at maximum span – 32" (with or without H-clips or other edge support) is 40 PSF.

### **ICC ES ER-5637**

Table 2 of ICC ES ER-5637 provides load capacities for PS2 panels over a range of support spacings. Again, for PS-2 32/16 sheathing panels, edge support is not required when the support spacing is less than 28" o.c. At a support spacing of 24" o.c., the allowable roof live load (Table 2 of ER-5637) is 70 psf. With a dead load of 10 psf (footnote 3 of Table 2), the allowable total load in the same roof application is 80 psf.

### **ICC ES ESR-1473**

ZIP System roof is comprised of proprietary paper-laminated OSB panels installed with a proprietary seam tape at all panel end and edge joints. ZIP System roof is a Building Code recognized replacement for conventional roof sheathing and roofing felt paper underlayment.

ZIP System roof has been designed to provide a moisture barrier prior to, and after, the installation of asphalt-fiberglass roof shingles, metal shingles and panels, and clay and concrete roof tiles<sup>1</sup>. As can be seen in ICC ES ESR-1473, ZIP System roof has been tested to comply with requirements of many test methods including:

- ASTM E 331 (water penetration),
- ASTM E 96 (water vapor transmission)
- TAS 100-95 (wind driven rain), and
- ASTM E 108 (roof covering fire classification with fiberglass shingles).

Please contact our Technical Services department at 800-933-9220 with any questions or comments.

Sincerely,

Kurt J. Koch, PE  
Vice President, Product Engineering and Quality

KJK/jmp

<sup>1</sup> ZIP System roof is intended to replace the first layer in a two-layer or multi-layer underlayment system. Follow the roof covering manufacturer's recommended instructions.