When insulating wood and metal frame wall assemblies always use a product that completely fills the cavity spaces – top to bottom, side to side and front to back. On occasion walls may be constructed with framing members that create cavities which are deeper than what is needed to meet the applicable energy code. For example, a wall may be framed with 2 x 6’s or even 2 x 8’s, for structural requirements, but the energy code can be met with a 3.5” thick product – R13 or R15. Even so, Owens Corning’s recommendation is to use a product that completely fills the cavity space.

The primary reasons for this are:

- Thermal Performance – To deliver full R-value, fiber glass building insulation must be in contact with the air barrier, either the interior finish or exterior sheathing. Using a product with a thickness less than the depth of the cavity will not ensure full, continuous contact. In addition, the portion of the cavity not filled (a “void”) does not contribute any R-value since it is not an air-tight space. In fact it can diminish the R-value of the insulation by allowing air to move around the cavity space, adjacent to the insulation.

- Installing insulation that completely fills the cavity ensures it will not move over time, creating gaps or voids in the cavity. This is especially true for those products installed by “friction fit” or “pressure fit” application.