

Product Information Bulletin

R-values and U-factors for Insulspan® SIP System

The Insulspan® SIP (Structural Insulating Panel) System is an energy efficient building system consisting of an EnerSpan™ insulation or PlastiSpan® insulation core with structural oriented strand board (OSB) structurally laminated to the interior and exterior faces.

Insulspan SIP System Production Information Bulletin No. 202 (*Thermal Resistance and Thermal Transmittance for Insulspan SIP System with PlastiSpan Insulation*) provides R-values and U-factors for Insulspan SIPs manufactured with a PlastiSpan insulation core. Insulspan SIP System Production Information Bulletin No. 220 (*Insulspan R-Plus SIP System Energy Efficiency with EnerSpan Insulation*) provides R-values and U-factors for Insulspan SIPs manufactured with an EnerSpan insulation core.

The overall (effective) thermal resistance (R-value) of a building assembly includes the effect of thermal bridges as a result of framing members as well as interior/exterior cladding or finish materials and air films. Insulspan SIP wall and roof assemblies require fewer framing members than conventional wood frame construction resulting in energy efficient building construction with higher overall R-value.

In addition, air leakage is one of the biggest sources of energy loss in most buildings. Air leakage rate and overall R-value are measures used to determine the energy efficiency of building construction. Significantly lower air leakage rates are achievable for energy efficient buildings constructed using the Insulspan SIP System.

The combined higher overall R-value and lower air leakage characteristic for buildings built with the Insulspan SIP System results in long-term energy cost savings versus other construction methods such as wood frame construction.