
**SUBJECT: MOISTURE CONTENT OF LUMBER USED WITHIN
PREMIER SIPS**

Integral to the construction of a Premier SIPS structure is the lumber used as plating and splines within the SIPs. Premier SIPS are designed to be used with kiln dried lumber. Therefore, Premier SIPS recommends the use of kiln dried lumber that has a moisture content at or below 12%. The reason for this requirement is to minimize any shrinkage of the lumber used within the SIPs, thus reducing the potential for unsealed gaps and cracks.

It is reported within the Forest Products Laboratory's Wood Handbook, Chapter 12, that lumber with a moisture content greater than 19%, may see considerable shrinkage as the lumber dries down to an equilibrium moisture content less than 19%. If this shrinkage occurs within a SIP plate pocket, gaps or cracks may open that provide a pathway for the movement of air. This air may contain moisture and if this moisture laden air meets a surface, with a temperature at or below the dew point of the air, condensation will occur. The use of lumber, with a moisture content of 12% or less will thereby provide a reasonable safety factor to reduce the potential for lumber shrinkage and minimize issues associated with lumber shrinkage.