

# LAMTEC CORPORATION

## Technical Bulletin #20

### Moisture in Wood Roof Assemblies

It is important to understand and manage moisture in Wood Roof Assemblies. Excessive moisture can lead to premature failure of the structure.

The American Institute of Timber Construction Technical Note 20, "Guidelines to Minimize Moisture Entrapment in Panelized Wood Roof Systems" (copyright February 1992) provides an excellent overview. The website link to this four page article is [http://aitc-glulam.org/wp-content/uploads/Technical\\_Notes/AITC-TN-20-1992.pdf](http://aitc-glulam.org/wp-content/uploads/Technical_Notes/AITC-TN-20-1992.pdf)

The following are two paragraphs from *Guidelines to Minimize Moisture Entrapment in Panelized Wood Roof System*.

#### Page 4 - Summary

While panelized wood roof systems are relatively simple in concept, the proper design of these systems to avoid potential moisture entrapment/condensation problems can be complex. The designer must have a thorough knowledge and understanding of (a) engineered wood products and their structural capabilities, (b) the performance of these wood products when exposed to moisture, (c) roofing materials and their application to wood roof systems, (d) the design of HVAC and ventilation systems and (e) the inter-relationship between each of these design considerations in a panelized wood roof system. By applying the general construction Guidelines presented in this publication, the potential for moisture entrapment and condensation in insulated wood roofs can be minimized.

#### Page 2 - Moisture Control Guidelines

Use dry wood with a moisture content less than or equal to 19% or do not install below roof insulation materials or vapor retarders until all wood framing elements have dried to a moisture content of 19% or less at the time of installation of these insulation materials.

When measuring the moisture content of the wood it is recommended that a moisture probe be used instead of a surface moisture meter.