

## The Superior Performance Benefits of Microllam® LVL with Watershed™ Overlay

Watershed™ Overlay (WSO) is a protective barrier applied to Microllam® LVL during the manufacturing process. WSO is available on Microllam® LVL products manufactured from Southern Pine and Yellow Poplar lumber species.

### What are the benefits of Watershed™ Overlay?

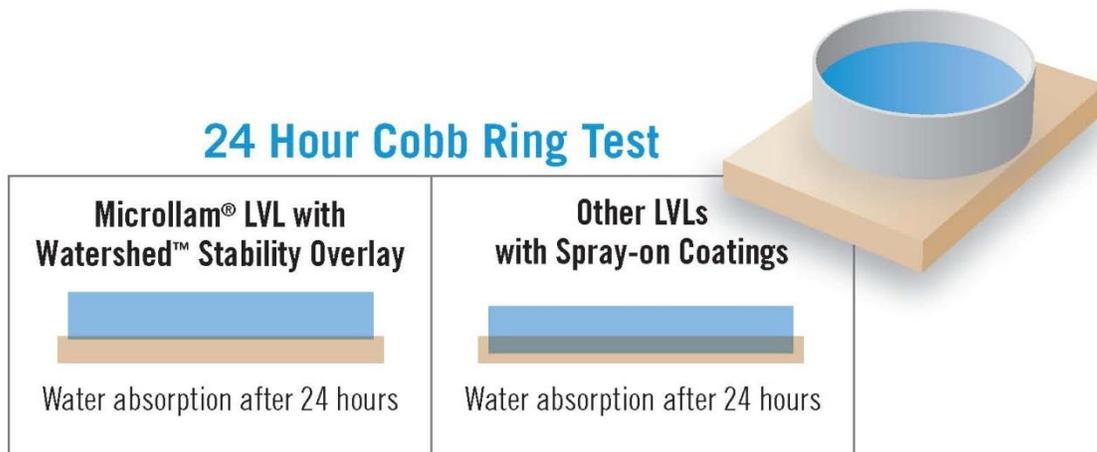
WSO is used to reduce moisture related cupping, swelling, and surface mold growth.

Microllam® LVL is an engineered wood product intended for interior, dry-use applications. Proper storage of the product is required during distribution and on the job site, including protection from direct weathering. WSO helps to protect Microllam® LVL for those short periods of time that it is exposed to the elements during construction.

WSO provides superior performance when compared to commonly used sealers and barrier coatings. In standard tests to evaluate resistance to moisture related problems, Microllam® LVL samples with WSO outperformed other LVL brands with competitive coatings in resistance to water absorption, cupping, and resistance to surface mold growth.

### Cobb Ring Test

The Cobb Ring Test evaluates a barrier coating for its effectiveness in moisture resistance by measuring the mass of water absorbed into a dry sample over 24 hours. Less water absorptions results in less swelling. On average, samples of Microllam® LVL with WSO absorbed 69% less water by mass than samples of competitors' LVL products with sealers or barrier coating technologies.

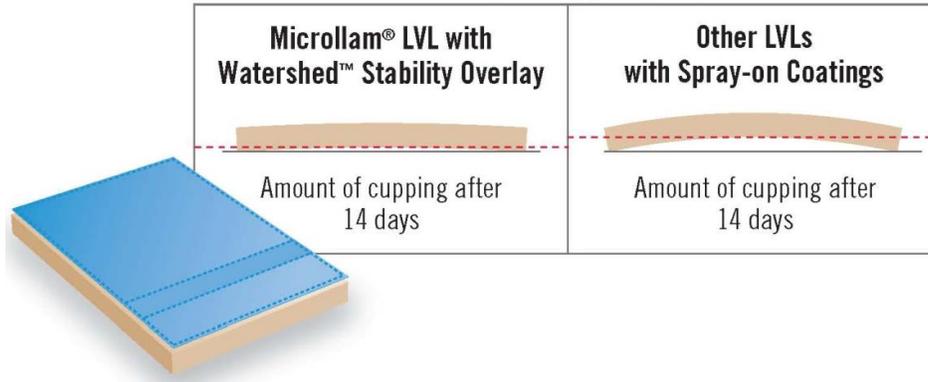


**Microllam® LVL is intended for dry-use applications**

**Cupping Test**

In the cupping test, one side of a sample is exposed to moisture under controlled conditions for 14 days. As water is absorbed, wood fibers expand on the saturated side, triggering a sample to cup. Severe cupping can develop in LVL products, causing difficulties with, or even preventing, installation. Microllam® LVL with WSO exhibited an average of 72% less cup than samples of competitors' LVL products with sealers or barrier coating technologies.

**14 Day Cupping Test**

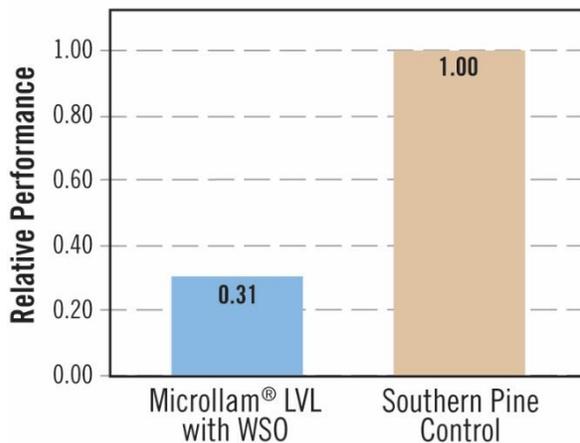


**AWPA E24 Laboratory Method for Evaluating the Mold Resistance of Wood-Based Materials**

In the test procedures outlines in AWPA E24-16, samples are exposed to conditions ideal for mold growth. Relative performance is determined by evaluating the percent of surface area covered by mold over a time period of 8 weeks.

Under these rigorous test conditions, Microllam® LVL with WSO significantly outperformed the control, exhibiting 70% less surface mold growth. This test demonstrated that the WSO barrier film can reduce, but will not eliminate surface mold growth when compared to uncoated LVL control specimens.

**Surface Mold Coverage After 8 Weeks**



**Watershed™ Overlay barrier film does not contain a biocide and no biocidal claims are made.**