

LOG HOME TIPS

Modern Log Homes

Precision in manufacturing and assembly, combined with new sealants, gasket materials, and special wiring and other fixtures have reduced many of the complications present in traditional rough-hewn log homes. However even using the most carefully engineered kit-type log construction methods, care and detailing during construction are important for durability and comfort in these structures. Log homes sold as "kits" may have been constructed with varying levels of expert supervision. Examination by an inspector who is experienced in log construction can find some (not all) indications of the care which was taken with construction.

Windows, Corners, Splines

Construction at corners and around openings for windows and doors must be tight and carefully executed to avoid drafts and condensation problems. Windows and doors must be set, framed, and trimmed with care to seal straight components abutting rounded log surfaces. Inspect where normal shrinkage has opened minor cracks (1/8") between logs to see if the inter-log splines are in place. If you see daylight between logs it is likely that proper splines or gaskets were omitted. Any such omissions, particularly at log home corners may lead to infiltration losses and may require use of additional sealants or caulking. If cold windy weather reveals infiltration points call your inspector for suggestions of special products and sealants.

Shrinkage, Gaps, Chinking

Log homes will shrink considerably in wall height as logs dry during the first one or two years. This is so even in factory-cut "dry" logs which may have absorbed moisture in transit and on site. All logs will dry and shrink further when heat is applied to the building. Considerable moisture released during this period will cause condensation inside the building during cold weather. Log-moisture content can be measured if necessary to determine whether there is a condensation problem from some other source. There may be modest seasonal changes in wall height as moisture levels change. In modern log homes construction details designed to allow this movement without damage to other rigid building components like windows doors, plumbing, and fixtures.

"Shop Talk," Martin Mintz, AIA, *Builder Magazine*, April 1986, details solutions for problems of shrinkage movement using a "t" jamb. A January 1986 article shows window details in 8" thick log walls.

Sealants and Coatings

These products are useful where gaskets were omitted or cannot be used:

Geocel Caulk or other GETM caulking products;
CompribandTM, an impenetrable sealant, Seco Corporation, Warmister, PA;
Log Home FoamTM, Norton Sealant Operations, Granville, NY;
PR-5365TM, polyurethane sealant, Products Research & Chemical Corp., Glendale, CA;
Traditional Mortar chinking [it falls out, we do not recommend it];
Pleko Perma-ChinkTM, Perma-Chink Systems, Redmond, WA is better than mortar by far.

A special protective coating for log homes is LifelineTM Natural Wood finish [Acrylic Polymer], from Perma-Chink Corp.

References

"Caulking, Chinking, Insulators, Sealants - Which System Works Best," *Log Home and Alternative Housing Builder*, Nov-Dec 1983.

Lincoln Log Homes Marketing, Inc., 6000 Lumber Lane, Kannapolis, NC 28081
704/932-6151

Insulating characteristics of log homes were neatly summarized by Roger Rawlings in "Log Homes in a New Light," Rodale's *New Shelter*, April 1983, p. 28.