

Study Methodology

The tests used stakes cut from four-by-four posts of southern yellow pine (SYP) purchased from two home centers in Charlotte, N.C. Material treated with MCQ was purchased from one retailer and material treated with ACQ was purchased from another. Copper penetration indicators used on cross-sectioned wafer samples from each post demonstrated complete penetration. Wafer samples were also analyzed for retention of the preservative components copper(Cu) and quat.

“Even though AWWA standardized testing requires that testers treat the materials themselves, we decided to obtain our materials commercially,” said Dr. Alan Preston, “As wood treatment formulations are proprietary, we could not replicate treatment in a commercial environment, and laboratory treatment would not yield real-world results. We wanted to assess the performance of treated wood that was available in the market, and decided that purchasing the wood from local retailers was appropriate.”

All end tag information was retained for traceability and photographic records were made of the materials throughout all stages of preparation. Stakes measuring 30mm by 30mm by 450mm were cut from the posts, avoiding heartwood and knots, once preservative retention levels were verified.

The stakes were distributed among three test locations: two in Hilo, Hawaii (one for decay testing, the other for termite testing), which is a well-known product research location in the wood treatment industry; and one in Tanegashima, Japan, for decay testing, which is used for product evaluation in the Japanese wood building industry. Untreated southern yellow pine stakes were used as controls at all three sites.

“The Hilo HI decay site has a rich silt loam soil type of volcanic origin. The termite site in Hilo can be characterized as sandy, free draining crushed gravel which is particularly conducive to allowing termite activity. In Tanegashima, Japan, the test site is characterized by an open canopy, sandy, light loam soil with an average annual rainfall of 80 inches,” said Preston. All three sites have been used in Viance research for a number of years and have been shown to be indicative of various locations throughout the US.

For a copy of Viance’s Treated Wood Alert brochure; the IRG paper, “Field Stake Tests with Copper-based Preservatives”; and the paper, “Evaluation of the comparative performance of Alkaline Copper Quat and Micronized Copper Quat formulations in field stake tests” by Darrel Nicholas, PhD, visit www.treatedwood.com.

About Viance LLC

Viance LLC provides an extensive range of advanced wood treatment technologies and services to the global wood treatment industry. With an expertise in wood biocides and wood protection chemicals, Viance provides high-level product support to its customers and innovative, advanced solutions that improve the performance and durability of wood and wood products. Viance is a joint venture between Rohm and Haas Co. and Chemical Specialties Inc., a wholly owned subsidiary of Rockwood Holdings Inc.

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