SIP No. 2059

Subject: SIP Fastener Use in ACQ Treated Lumber

Date: November 2007

In 2004, the treated wood industry halted production of lumber pressure-treated with Chromated Copper Arsenate (CCA) for residential applications in response to EPA concerns about arsenic (a known carcinogen). The primary product replacing CCA is Alkaline Copper Quaternary or ACQ. While ACQ is deemed safer because of its non-arsenic content, studies have shown it may be more corrosive to metal fasteners than CCA.

The corrosive nature of ACQ and its impact on metal fasteners has created concern in the construction industry. Initial efforts by the manufacturers of ACQ treated lumber to identify acceptable metal fasteners resulted in the recommendation that stainless steel fasteners or hot-dipped galvanized fasteners be used with ACQ treated wood products.

R-Control also recommends that 8d nails or staples used with R-Control SIPs be stainless steel or hot-dipped galvanized fasteners when ACQ lumber is used.

In light of the ACQ issue, R-Control SIP Wood Screws and Metal Fasteners have been evaluated by an independent, third party to perform accelerated corrosion resistance tests in ACQ treated lumber.

These independent test results indicate that the R-Control SIP Screws and Fasteners barrier coating performs well in ACQ treated lumber and even out perform hot-dipped galvanized. As a result of these performance tests, we can recommend that R-Control SIP Wood Screws and Metal Fasteners are “compatible for ACQ” treated wood applications.

As with any fastener in an ACQ treated lumber application, estimates of its service life cannot be provided due to the many variables that the fastener is exposed to, including (but not limited to) the chemical retention level in the wood, species of wood, and environment.

Note: R-Control SIP screws are intended for use with R-Control SIPs as described in the R-Control SIP details and are not intended for other applications.