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## **Preservative-Treated Wood**

In 2002, the preservative-treated wood industry agreed to voluntary EPA standards to prohibit the manufacture of arsenic and chromium based wood preservatives by January 1, 2004. The predominant replacement for arsenic and chromium is the compound Alkaline Copper Quarternary (ACQ) commonly marketed as "Preserve", "Preserve Plus", or "Osmose NatureWood." ACQ provides excellent protection against decay and insect attack, however, the preservative creates a more corrosive environment for metal components. Therefore, previously acceptable fasteners, hangers and flashing materials may not be acceptable for use with ACQ.

In accelerated corrosion testing performed by the fastener industry, stainless steel displayed no appreciable corrosion in the presence of ACQ. In similar testing, some proprietary epoxy and ceramic coatings have demonstrated acceptable resistance to corrosion in the presence of ACQ. The hot-dipped galvanized steel fasteners subjected to testing have exhibited more corrosion in contact with ACQ than in contact with the arsenic based preservatives, yet manufacturers claim the corrosion is within acceptable levels.

Fasteners using the following coatings have exhibited unacceptable levels of corrosion when exposed to ACQ:

- standard zinc-plating
- electro-plated galvanization
- coatings of yellow-dichromate
- dacrotized coatings

Results of corrosion testing indicate that aluminum is unacceptable for contact with ACQ.

Standardized testing for corrosion of metals in contact with ACQ is presently being developed. Until standardized test are available, we must depend on manufacturers' comparison testing for acceptance of fasteners, hangers, and flashing in contact with ACQ. It is incumbent on the installer of preservative-treated wood to obtain the fastener, hanger, or flashing manufacturers' testing and assurity results for approval of the metal for contact with preservative-treated products.

At the time of the framing inspection, the permit holder shall provide the inspector with the manufacturers' corrosive testing and assurity results for all metal in contact with preservative-treated wood. Framing approval will not be granted without acceptable documentation that metal components and fasteners in contact with preservative-treated wood are compatible with preservative.

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