



# Chemonite® Pressure-Treated Douglas Fir: A Good Choice for Utility Poles



Warranted Chemonite® poles provide reliable transmission and distribution of electric energy, with practical benefits and less environmental impact than alternatives. The ACZA treatment consistently meets recognized standards of penetration and retention in difficult-to-treat species such as Douglas fir.

## Proven Preservative for Refractory Species

Originally developed at the University of California in the 1920's, the preservative formula was designed to satisfy the peculiar qualities of western softwoods and assure their proper treatment. Since its origin, ACZA (ammoniacal copper zinc arsenate) preservative has demonstrated its effectiveness as a wood preservative, protecting wood from decay and termites (even Formosan termites). This is documented by many field and laboratory tests, and by poles still in uninterrupted service after more than 40 years. In fact, this is the only waterborne treatment that is effective with these refractory species. ACZA preservative is also effective in treatment of cedar and pine species.

## Douglas Fir: A Choice Wood

No other alternative for transmission poles equals Douglas fir in size, form, strength, and availability.

## Long-Lasting

The USDA Forest Products Laboratory states that the expected life of Chemonite® poles is 50 years. Poles have been known to provide uninterrupted service for more than 40 years.



## Low Fastener Corrosion

No Chemonite® poles are known to have been removed from service due to failure from corrosion. In fact, bolts removed from utility poles after 40 years of service have exhibited accepted strength properties.

## Fire Resistance

Tests indicate that Chemonite® wood provides fire resistant qualities. These tests confirm utility field crew reports that Chemonite® wood resists grass and brush fires.

## Woodpecker Resistance

For years, utility crews have also reported that poles treated with ACZA preservative show little or no damage from woodpeckers. A formal study showed 71% less damage from woodpeckers than poles treated with other preservatives.

## Electrical Conductivity

Conductivity is related to moisture content, not treatment method. Chemonite® poles have no higher conductivity factor than other treated or untreated poles.

## Climbability

Research has indicated that the force required to penetrate Chemonite® poles by a line worker's gaff is comparable to that of untreated Douglas fir.

## Steam Sterilization

The treatment system allows for the use of steam sterilization during the treatment process to kill existing fungal infection in the heartwood. This is true for no other waterborne preservative system.

## Reuse & Disposal

Many utilities reinstall poles removed from service at other locations. It is also very common for poles to be reused for other purposes. Disposal requirements are typically the same as for other large construction products; check with local landfills for details.

## Safety

Poles treated with ACZA preservative fall under EPA's minimum protective precautions. There should be no concern when handling or climbing Chemonite® poles. No special clothing is required. As with other types of treated and untreated wood, dust masks and goggles should be worn when sawing or machining wood.

## Warranted Protection

Chemonite® treated Douglas fir utility poles are backed by a 50-year limited warranty against damage caused by termites or fungal decay that makes the pole structurally unfit for the application for which it was intended. This warranty is transferable and covers the original and all subsequent owners.

## Environmental Attributes

A life cycle assessment (LCA) confirmed that ACZA-treated utility poles use less energy and resources, have a lower environmental impact, decrease greenhouse gas levels, and offset fossil fuel use, when compared to concrete, galvanized steel and fiber-reinforced composites. For more information see the reports at [www.Chemonite.com](http://www.Chemonite.com).

## Standards

ACZA treatment of Douglas fir poles complies with standards of the American Wood Protection Association (AWPA), Canadian Standards Association, Federal Government Specification TT-W-571J, and the Rural Utilities Service (RUS).

## The Option of ET® Treatment

To enhance climbability of these poles, they may be ordered with ET® oil-emulsion treatment. The process conditions the outer shell of the pole, allowing for deeper gaff penetration by climbing linemen. Trials of poles after 9, 14, 20, 23 and 25 years' exposure have shown the lasting effectiveness of ET® conditioning.



# Advantages of Chemonite® Pressure-Treated Poles

- Protected against fungal decay and termite attack, even Formosan termites.
- Preserved with ammoniacal copper zinc arsenate (ACZA).
- Effective penetration of Douglas fir.
- Backed by 50-year limited warranty
- Long history of successful use.
- Studies indicate resistance to carpenter ants, woodpecker damage, and fire.
- With appropriate treatment, can be used in above-ground, ground-contact, freshwater, and saltwater applications.
- May be stored, handled, and worked with like untreated wood.
- Preservative is leach-resistant.
- Treatment leaves surface free of chemical deposits.
- Life cycle assessment (LCA) confirms environmental attributes.



For more information, including sources of Chemonite® wood, see [www.Chemonite.com](http://www.Chemonite.com) or contact Lonza Wood Protection 678-627-2000.