

Penta: The Lineman's Choice™

P E N T A

**Penta has been the preservative of choice for wood utility poles for more than 60 years.** No other alternative can match Penta's track record of proven performance, durability, and safety.

**Linemen prefer penta-treated poles because they are easy to work with and they are safe to work on.** If linemen need to climb a penta pole, they can quickly attach gaffs and climb without delay. The flexibility of a penta pole makes them less susceptible to ice and windstorm breakage. And penta poles pose significantly less risk of electrocution because they are not as conductive as non-wood poles.

**Penta poles' "linemen friendly" characteristics are well established throughout the industry.** That's why penta poles are chosen for pole events at the annual International Lineman's Rodeo.

**Penta is the most popular wood preservative among utilities because poles treated with penta stay in service for decades, are easy to maintain, are in ready supply and are competitively priced.**

**Utilities have come to rely on penta as a wood preservative that has a history of performance and safety...**and a bright future supported by manufacturers committed to assuring high quality products and consistent availability.

**Penta-treated poles are here to stay!**

**Penta poles stand tall in all conditions** Wind, rain, ice, fire, insects and fungi... Penta helps utility poles resist damage from all of these conditions.

- Penta's flexibility lowers the chances of ice and windstorm breakage
- Penta's moisture resistance properties reduce checking and pole twist
- Penta poles resist undetected burning (afterglow) when exposed to grass or brush fires
- Penta repels termites and other wood-eating insects.

**Penta poles reduce long-term costs** Competitively priced at installation, penta poles' true value is realized in the cost savings they produce throughout their lifespan.

Savings start at delivery. Unloading penta poles is a fast and smooth operation that can be accomplished with readily available equipment. Specialized slings or machinery are not required. Once unloaded, poles easily stack in space-saving piles. No extra yard space or purchase of specialized racks is necessary.

Penta poles do not require special installation equipment. Ongoing maintenance is simple and can be performed by trained utility personnel or outside contractors.

Penta's preservative characteristics ensure that poles typically last 40 years or longer. In fact, the replacement rate for penta poles averages less than four percent per decade with periodic maintenance, according to in-service records from several utility companies.





Even after they are removed from service, penta poles still provide a long-term cost benefit because they can be re-used, recycled or safely disposed of in landfills in accordance with state and local requirements.

**Penta...thoroughly tested for health and environmental effects** Numerous scientific studies and a 60-year history of effective use demonstrate that penta does not cause adverse health or environmental effects when used properly.

With proper application, handling and use, exposures to penta among wood treaters, linemen and others who work with penta are typically far below levels at which test animals have shown any toxic effects – and well within safety margins established by governmental agencies.



To safeguard workers and consumers, as well as provide ongoing product quality assurance, penta and other major wood preservatives periodically undergo a re-registration process with the U.S. Environmental Protection Agency (EPA). To develop the state-of-the-art data required for EPA's most recent re-registration process, penta manufacturers have spent millions of dollars developing numerous toxicological studies and risk assessments. These studies have been conducted by leading experts in the fields of toxicology, environmental fate and occupational exposure.

In every case, using highly conservative assumptions, the latest scientific data show that penta poles do not pose significant risks to people, wildlife, aquatic life, or the environment.

**Penta poles...the responsible environmental choice** Penta poles are not a significant source of emissions or pollution while in-service. When taken out of service, most poles are re-used and kept out of the waste stream. Poles that are landfilled leach at levels that are far below EPA levels of concern.

The use of penta-treated poles contributes to the preservation of natural resources and wildlife. Treated wood poles save roughly 32 million barrels of oil per year in saved energy costs related to production, compared to alternative pole materials.



Penta's in-service life span of more than 40 years mitigates the need for frequent replacement, thereby helping preserve valuable forestland.

Penta poles' low conductivity relative to non-wood poles lessens the risk of electrocution to large birds, such as eagles and hawks.

**Penta poles ... easy to reuse and recycle** Because they are not considered hazardous waste, penta poles can be reused and recycled in a number of ways. Industry data indicates that nearly 70 percent of out-of-service poles are either remanufactured and re-used as utility poles or used as fence posts or to support farm lighting.

Penta poles can also be burned for energy recovery in some combustion units and industrial boilers. This is permitted because penta does not contain toxic metals, and because this type of burning results in almost complete destruction of the penta, with dioxin/furan emissions comparable to that from ordinary particle board.



If re-use or energy recovery options are not available, penta can be safely disposed of in landfills in accordance with state and local requirements.

