

## CCA/PEG POLE PRESERVATIVE

by

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This topic deals with the research work on the addition of polyethylene glycol (PEG) to CCA type C Pole preservative to soften the outer shell of poles. Most utility pole users and suppliers are aware of the attention being focused on the spur penetration properties and climbability of CCA poles. The objective of adding PEG to CCA-C is to obtain a pole that is more acceptable than CCA-C in terms of climbability while retaining the excellent preservative properties of CCA.

Three pole species have been employed throughout the research; namely, Red Pine (Pinus resinosa), Jack Pine (Pinus banksiana), and Southern Yellow Pine (slash-Pinus ellioti, and longleaf-Pinus palustris). The first two, Red Pine and Jack Pine, are extensively grown in central and eastern Canada. Southern Yellow Pine is, of course, grown in the United States, and it has been included in the research because of its excellent potential as pole stock.

The properties of CCA/PEG treated wood have been researched in terms of: electrical resistance, flammability, corrosivity, durability (i.e. toxicity), preservative penetration, and Pilodyn measurements. Utility craftsmen have also been asked to evaluate CCA/PEG poles in terms of climbability.

### PILODYN MEASUREMENT PROGRAM

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This research program attempts to establish a correlation between a wood pole's measured degree of hardness (i.e. Pilodyn readings) and perceived hardness. Pilodyn, moisture content, and air temperature readings constitute the measurable (i.e. objective) data base. Each climber's rating of perceived pole hardness (i.e. too hard, hard, average, soft, too soft) forms the subjective data base for the correlation exercise.

The Pilodyn Measurement Program may also be employed to arrive at minimum and maximum Pilodyn readings to qualify poles for climbing.