

Barrier wraps are impermeable membranes that are placed over the butt end of wood poles just prior to installation. Barrier wraps offer additional protection to treated wood from decay, insect attack, and preservative strength loss over time. They also protect the surrounding environment from chemical leaching.

Independent tests have proven that the use of one-piece barrier wraps can significantly reduce the occurrence of decay and insect attack on treated wood structures when the ground contact portion of the wooden member is protected from soil contact by the barrier. For example, preservative treated stakes wrapped with a barrier in a Hilo, Hawaii have out-performed un-wrapped stakes 2 to 1. Basidiomycota vector-function is suppressed by impermeable membrane barriers; preventing these decay fungi from efficiently translocating soil-source inorganic nutrients

The Electric Power research Institute (EPRI), in a Study initiated in 2003, and is ongoing, demonstrates that preservative movement out of treated poles equipped with barrier wraps is blocked. Impermeable barrier wraps retard leaching into the surrounding environment.

1997 Oregon State University researchers concluded, "Booted (barrier wrapped) stakes had little evidence of decay, where as those without boots (barrier wraps) experienced large weight loss and extreme shrinkage and deformation."

The American Wood Protection Association (AWPA) has recently recognized the efficacy of the barrier wrap system. AWPA now includes Barriers in Standard P-20-07 and is working on additional commodity listings of barrier systems.

The International Building Codes, International Code Council Evaluation Services recognizes the use of a barrier wrap system for use in ground contact service in report ESR-1834.

2000 Mississippi State University termite resistance tests found that there was no attack on any of the coated (barrier wrapped) wood.

Soil Bed tests were performed by Forinek-Canada (Western Lab), PowerTech Labs, the BC Science Council, and BC Hydro on CCA-C treated and untreated Lodgepole pine posts. In high decay conditions for over eight years found that the performance increase due to booting (barrier wrapping) was 2.5 times greater on a retention basis.

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