



THERMINOL

Heat Transfer Fluids by Eastman

From forest to beautiful wood floors

How Peru's Bozovich streamlined its wood treatment process with a better heat transfer fluid

PROBLEM

Bozovich's kiln drying plants were experiencing bottlenecks, causing added maintenance and temporary shutdowns.

ANALYSIS

Plant engineers realized current heat transfer fluids were contributing to slowdowns.

SOLUTION

Eastman Therminol 55® heat transfer fluid, which has ideal chemistry for kiln drying operations, is introduced.

RESULT

Bozovich plants are running without bottlenecks and production capacity has increased.

Stepping onto a luxurious wood floor is undeniably one of life's small pleasures. The trip from forest to floor is an intriguing mix of natural resources and advanced science. Here's the story of how a 50-year-old product, Eastman Therminol® heat transfer fluid (HTF), plays a big part in ensuring the wood that is used in floors and decking is long-lasting and inviting. For one Peruvian forestry company—Lima-based Bozovich—the switch to Therminol has made significant improvements to its wood treatment process.

Timber processing is a careful balance of moisture control. Too much moisture and the wood may warp in the future or fungus and insect infestations could remain. Too little moisture and the wood could crack and split. It's important to get it right, so commercial foresters use kilns—or giant ovens—to ensure the ambient temperature remains even. While it is possible to air dry wood for commercial purposes, using a commercial kiln to dry wood is faster, achieves better results, and is more economical despite the investment in equipment.

Bozovich, one of the world's leading forestry companies, uses large-chambered kilns. Moisture and temperature are controlled via heat exchangers. Compartments are filled with batches of wood, and air is circulated until the desired moisture content is reached. Kiln drying shortens drying times, controls degradation, kills fungus or insect infestations, and provides immunity to seasonal climate changes.



Bozovich



Clogs, solids formation signal it's time for a change

For many years, Bozovich used a mineral oil-based product in its heating systems. Unfortunately, the product was not ideally suited for the complex drier function. The mineral oil was hard to clean and maintain, and the whole system became repeatedly clogged, causing costly plant maintenance shutdowns. Heat exchangers are very sensitive to solids formation which was caused by the mineral oil product deficiencies. The dryer process became so bottlenecked that the plant operations needed to air dry the wood at times, adding cost and time to the processing.

Pablo Pezzano, account manager at Eastman, suggested the plant flush the system with Therminol FF—the first synthetic flushing fluid for liquid-phase heat transfer systems. Deposits from oxidized, thermally degraded, or contaminated fluid can foul interior surfaces, making it necessary to clean the system prior to charging with new fluid. After that process was completed, Pezzano recommended Therminol 55 for

several reasons. Therminol 55's fouling-resistant chemistry is formulated to run with very low solids and high-boiler formation when used in a well-designed and maintained system. "Our deep experience working with major oil and gas treatment plants throughout Peru enabled us to demonstrate Therminol's successful and reliable performance track record for Bozovich plant managers," he says.

Goodbye to bottlenecks

Within a year, the plant in Peru was running smoothly and efficiently. "Our bottleneck problem has virtually been eliminated," according to Javier Rivera Pinzás, operations manager at Bozovich. "Eastman has been able to deliver what we needed—proven product performance, hands-on technical support at our site, and local commercial resources. We continue to work with Eastman for ongoing sample analysis as well as operational and maintenance training."



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