



Eastman Therminol® 66 heat transfer fluid gets the green light at SAIB, a leading Italian chipboard producer

PROBLEM

Wood recycler and chipboard manufacturer, SAIB, S.p.A., located in Caorso, Italy, needed to update its plant technology, but cost was a concern.

ANALYSIS

Mineral oil was the historic heat transfer fluid solution for the company's new presses but did not meet the plant's requirements for improved production output.

SOLUTION

Eastman's Therminol team demonstrated how synthetic heat transfer fluid (HTF) could benefit the new heating system.

RESULT

The client saved time and money by reducing plant maintenance, the need for topping up fluids, and operating expenses.

Going green is nothing new at Italy's SAIB, S.p.A. SAIB was one of the first companies in the world to recover wood scraps from European wood waste and transform them into sustainable chipboard panels for wardrobes, beds, cabinets, tables and other furnishings. SAIB began its repurposing business in 1962, years before sustainability was the norm. Today, the company collects more than 490,000 tons (>1B lb) of wood waste annually and continues its leadership position among Italian companies producing raw and melamine-faced chipboard (MFC). In 2018 SAIB products obtained the prestigious LEED® certification for sustainable high-quality material.

So it was no surprise that SAIB took another game-changing leap forward in 2016. Since its inception, SAIB had been using locally produced mineral oil in its heating systems, but increased plant production was taking its toll on the company's operating efficiencies. Over the years, production had increased to 2000 mc per day. It was time for new equipment.

In 2014, it became clear that SAIB needed a new press and heater installation. Through an established relationship with SAIB's heater supplier, the Eastman Therminol team had the opportunity to introduce a big idea: the use of synthetic heat transfer fluid.

Shifting a long-held paradigm is never easy. The use of mineral oil in the wood industry has been commonplace in Europe for

decades, both among manufacturers and heating companies. The idea of using a synthetic fluid was relatively new to the industry and represented a larger original investment than mineral oil.

But this is where the Therminol team excels. As one of the oldest and largest suppliers of heat transfer fluids in the world, the team has decades of experience and a global track record of successful installations. When the new heater system was being designed, Eastman was able to offer detailed technical support. The team provided the technical parameters of Therminol fluid performance and met with design engineers to offer advice on expansion tank design, expected lifetime of the fluids, and other details that would add efficiency and longevity to the new system.

Topping SAIB's "wish list" was a heat transfer product with far better performance for their new press and heater installation. They needed a product that could reliably perform at higher temperatures and offer higher thermal stability.

Therminol 66 was able to offer these features, but cost was a concern for SAIB leadership. Synthetic fluids require more of an upfront investment than their mineral oil counterpart. However, the Therminol team was able to demonstrate better performance, higher HTF temperatures/operating temperatures, longer life of HTF, fewer top ups, and less fluid degradation/cleaner system operations, all leading to lower operating expenses.



"When we looked at the switch to Therminol 66, we realized this would be a long-term and, ultimately, economical investment," says Sergio Doriguzzi, technical director at SAIB. The product benefits were significant and, along with Eastman's design phase and technical fill support, make Therminol the best solution for our growing business. Therminol 66 is a unique and stable product that delivers the operating temperatures we need."

After using Therminol for 2 years, the company reports better thermal stability, minimal HTF top ups, and lower-than-expected operating costs. Their new installation can operate at 300°C, which is higher than the company's other presses in the factory.

Therminol's ongoing TLC Total Lifecycle Care® program delivers in-service fluid sample test results to help ensure the system is working properly and efficiently. By following recommended guidelines for heat transfer fluid and system operation, SAIB can expect similar results for approximately the next 20 years. That's a long-term investment that truly pays off.



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