

# STREAMLINE

Paratherm *Application Series*

## System Cleaning Fluid Improves Efficiency of Carpet Underlay Lamination



*Cleaning the Vitafoam system "on the fly" involved draining used heat transfer fluid from the heat exchanger and replacing it with the Paratherm LC™ system cleaner. Production continued while the system was cleaned. After 4 weeks the system was drained and recharged with Paratherm NF® heat transfer fluid.*

### APPLICATION SERIES

Company:	Vitafoam Products Canada Ltd.,
Location:	Calgary, Alberta, Canada
Application:	Polyurethane Foam Laminator
Heat Transfer Fluid:	Paratherm LC™ system cleaner

### Paratherm LC™ System Cleaner Restores Normal Production Speed to Vitafoam Products Canada, Ltd.

Calgary, Alberta – Vitafoam Products Canada Ltd., the world's largest polyurethane foam manufacturer, found that cleaning its carpet underlay laminator with Paratherm Corporation's LC™ system cleaner enabled the company to return to its normal production speed. Lamination of carpet underlay materials, which are assembled in Vitafoam's Calgary, Alberta facility, offer speedy production, cost effectiveness and bond strength.

To assemble carpet underlay materials, the laminating equipment uses a three-section heater. First, the heat transfer fluid is brought to 520°F. The fluid then circulates through the laminating equipment's heat transfer roller which uses heat to laminate plastic to the rebounded polyurethane foam.

"We noticed that we were getting cold spots on the roller, which prevented consistent lamination," Vitafoam's Maintenance Supervisor, Dave Matthews said. "We often had to slow down our production to correct it."

Matthews noticed that degraded heat transfer fluid was leaving deposits in the system, and knew that cleaning the system would improve the lamination process.

"When we cleaned out the system with the LC fluid," Matthews continued, "we eliminated the cold spots and were able to resume our normal production speed."

The system uses fifty gallons of heat transfer fluid which Matthews drained and replaced with Paratherm LC. At the same time he removed the laminator's strainer and then ran normal production for four weeks. The final step was to drain the LC from the system and refill it with new Paratherm NF heat transfer fluid.

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*Vitafoam's Maintenance Supervisor Dave Matthews checks the quality of the foam lamination. Using Paratherm LC™ system cleaner, Vitafoam eliminated the cold spots on the rollers that were caused by fouling.*

Matthews said that Vitafoam selected Paratherm LC for its competitive pricing, but he found that it performed better than any previous cleaning method.

"In the past we tried pressure flushing with hot water," Matthews said, "but the LC system cleaner is much more effective and easier to use. There wasn't as much draining and we didn't need to dry out the roller."

Vitafoam's polyurethane foam has a variety of applications that include:

- Positioning and support padding for medical braces and splints.
- Shipping protection for packaging.
- Waterproof cushions.
- Drainable seats, fenders and air circulation pads.
- Filtration devices for marine applications.
- Fabric, lamination and trim applications for the automotive industry.
- Cores and toppers for mattresses.
- Flame-laminated fabrics, flexible polyurethane foam, non-woven webs, films and substrates.
- Carpet underlay materials for both residential and commercial applications.



*Dave Matthews said, "the lamination failures that reduced production efficiency were all but eradicated after the heat transfer system rollers were cleaned with Paratherm LC™ system cleaner."*

Paratherm system cleaners are compatible with all mineral oil-based fluids. The LC system cleaner was designed to dissolve deposits while the system is in operation so production interruptions can be kept to a minimum. The SC system cleaner was designed for either cold or warm applications.

Paratherm, located in suburban Philadelphia, manufactures a line of heat transfer fluids and system cleaners for closed-loop thermal systems. Paratherm's heat transfer fluids are non-toxic, free of foul odors and environmentally safe. Paratherm also offers a staff of technical consultants to assist customers with the selection and maintenance of heat transfer fluids.

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