Solstice

UTILITY REFRIGERATED TRAILERS DELIVER FOR THE PLANET

Success Story

For Utility Trailer Manufacturing, one of the largest refrigerated trailer manufacturer in North America, enhanced performance and energy efficiency is top priority. That's why when they needed a more energy efficient foam insulation for their 3000R® reefer, they turned to Solstice's ultra-low global warming potential (GWP) blowing agents.

The Challenge

Reduce Greenhouse Gas Emissions from Reefer Insulation Systems

The refrigerated trailer (reefer) industry is facing an environmental challenge resulting from the use of high GWP materials, such as hydrofluorocarbons (HFCs), in the manufacturing process of insulation foam.

For decades, HFCs were the preferred blowing agent in polyurethane foam insulation applications, but this material contributes to greenhouse gas emissions.

As a result, HFCs are being phased out.

The industry needed an alternative that provided minimal GWP and maximum energy efficiency. Furthermore, Utility required a solution that enabled superior insulation performance.

Utility is helping to reduce greenhouse gas emissions by utilizing Solstice® materials. Use of Solstice® technology by companies around the globe has helped avoid the potential release of the equivalentof more than:

326 million

metric tons of carbon dioxide into the atmosphere; equal to the carbon emissions from nearly

70 million

gasoline-powered passenger vehicles per year

Since converting to Solstice® blowing agents, Utility impact has resulted in:

- The equivalent of nearly 147k + cars off the road every year
- Replacing the amount of CO_2 converted by 258M+ acres of trees every year
- Help save the CO_2 equivalent of the power to run more than 68K homes

Calculations are based on actual sales of Solstice® products (in lbs) from Jan 2010 through Dec 2022, and utilize the EPA GHG equivalency calculator for conversion.

The Solution

Low-GWP Solstice® Blowing Agents for Reefers

Solstice® Blowing Agent checked all the boxes for Utility:

Provides better R-value

Solstice® Blowing Agents improve the R-value of conventionally processed polyurethane foam in the production of the reefer's walls.

Low temperature

At temperatures required for refrigerated trailers, foam systems with Solstice® Blowing Agents perform up to 12% better than cyclopentane.

Has excellent dimensional stability and adhesion

Versus systems formulated with alternative blowing agents such as pentanes or HFC-134a.

Is better for the environment

Solstice® Blowing Agents have a global warming potential (GWP) of 1 – 99.9% lower than the GWP of hydrofluorocarbon (HFC) blowing agents. Foams using Solstice® Blowing Agents have shown an improvement in R value (which represents thermal conductivity) when compared with foams made with HFCs or pentanes.

Nonflammable

Solstice® Blowing Agents are nonflammable. Flame limit measured at ambient temperature and pressure using ASTM E 681-85 with electrically heated match ignition, spark ignition and fused wire ignition; ambient air.

Better quality

Utility's foam-in-place insulation using Solstice® Blowing Agents provides a 100%, 360-degree voidfree foam envelope to ensure the entire trailer is fully insulated.

Legacy of Innovation

Get all the benefits of a superior solution built on a legacy of innovation.

World leading Reefer Supplier

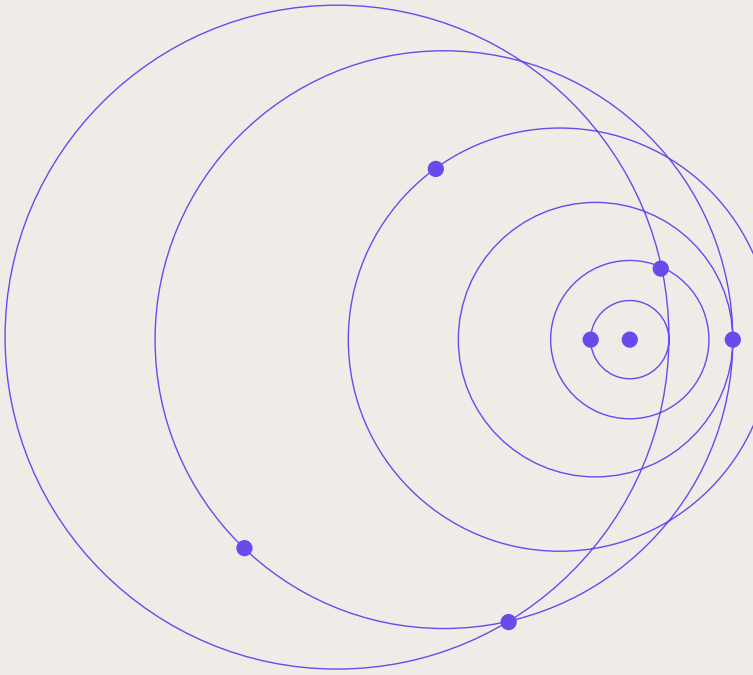
From humble beginnings more than a century ago, Utility has grown to become a leading force and technology trendsetter in trailer manufacturing. They are the world's No. 1 manufacturer of reefers and offer a full line of dry freight and flatbed trailers.

Solstice

Optimize Insulation Performance

Foreseeing the need for continued lower global-warming potential solutions, Solstice continues to invest in HFO technology. Today, Solstice is helping customers lower their greenhouse gas emissions and improve energy efficiency without sacrificing performance.

Long-Term Performance + **Environmental Benefits**



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For more information, scan to contact us:

solstice.com
Solstice Advanced Materials
115 Tabor Rd.
Morris Plains, NJ 07950

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Version FEB 2026