

CUSTOMER SUCCESS STORY



At BASF, we don't make windows. We help make them more energy efficient.

Customers: [ADCO Global Inc.](#), Chicago, Ill., and [TRACO](#), Cranberry Township, Pa.

End-Use: NEXGEN™ Energy Spacer™ in NX-300 Window System

Product: Oppanol® Polyisobutylene (PIB)

PROBLEM: Founded in 1943 as the Three Rivers Aluminum Company, TRACO has been manufacturing and marketing high-quality windows, doors and skylights for more than 60 years. As energy codes become more stringent in the building and construction industry, TRACO remains committed to leading edge technology that improves the thermal performance and quality of its products. For TRACO, this means engineering windows with current and future energy and environmental codes in mind. TRACO's state-of-the-art warm edge window system utilizes the NEXGEN Energy Spacer, a revolutionary technology for insulating glass manufacturing that utilizes a non-metallic spacer system to provide optimal thermal insulation performance.

"TRACO's energy spacer provides high performance heat insulation, and is considered by our customers to be the ultimate warm-edge technology available in the market," said Greg Lusty, Product Marketing Manager for TRACO's NEXGEN product line. "It meets our standards for providing high quality, high performance, competitively priced products that exceed the most stringent industry standards."

SOLUTION: One of the technologies used in TRACO's NEXGEN Energy Window is a plastic sealant – known as a thermoplastic spacer (TPS) – manufactured by ADCO Global Inc. The TPS functions as the insulating glass (IG) spacer system and forms a barrier impermeable to argon insulating gas between the IG unit's interior airspace and the outside world. ADCO selected BASF's Oppanol PIB as the primary sealant for its TPS system because it is flexible, waterproof and resistant to UV radiation. Oppanol PIB is also extremely durable.

"Using thermoplastic spacers with PIB eliminates the need for the metal spacers that are typically highly conductive materials. While metal spacers can reduce the energy efficiency of the window, PIB-based TPS spacer windows provide additional 10% energy savings compared to most products on the market," said Lusty.

"We selected Oppanol PIB because it combines very low moisture transmission rates and low gas permeability values with strong adhesion and great elasticity," said Ron Vollmer, Business Manager for Insulating Glass and Construction Products for ADCO Products Inc.

In addition to its energy-saving features, Oppanol PIB offers high resistance to mechanical and thermal stress caused by a variety of environmental conditions. TPS windows are better able to accommodate torque stress making them less prone to breakage, in the event building settling, high winds, or even a moderate earthquake. Oppanol PIB also enables windows made with warm edge thermoplastic spacer insulating glass to be built in virtually any shape or size, to give architects the flexibility to select any type of window frame — including wood, vinyl, fiberglass and aluminum.

BENEFITS: Warm edge thermoplastic windows sealed with Oppanol PIB:

- Maintain an insulating gas fill between the panes of glass and prevent moisture penetration into the interior airspace.
- Significantly slow the exchange of the filled gas with air between the panes, protecting the energy barrier in the windows for many years.
- Eliminate the need for the metal spacers that typically act as a thermal conductor, providing an additional 10% energy savings compared to other products on the market.
- Eliminate temperature gradients along the glass panes to aid in the prevention of condensation and thus reduce mold formation.
- Offer improved resistance to certain mechanical and thermal stress.

BASF – The Chemical Company. We don't make a lot of the products you buy. We make a lot of the products you buy better.®

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