

# Price Chopper Anti-fog Freezer Film

## Lexan\* Constant Clear film allows supermarket chain to turn off glass door heaters and reduce the load on compressors

With razor-thin profit margins, supermarkets must be vigilant in controlling overhead costs such as electricity. Price Chopper, a privately held supermarket chain headquartered in Schenectady, NY, is particularly focused on cost control due to its brand message of low prices for shoppers. When Price Chopper was approached by SABIC Innovative Plastics regarding a new, energy-efficient way to ensure fog-free doors on freezer and refrigerated cases, the company decided to conduct a trial. The results of a two-year test of Lexan Constant Clear anti-fog freezer film were so impressive that Price Chopper has installed the film in 10 stores with plans for more.

### Challenge

#### Reducing energy usage to save money and support the environment

Price Chopper - part of the Golub Corporation - is a 75-year-old chain of 116 supermarkets located in upstate New York, Pennsylvania and New England. The company is known for its emphasis on helping consumers save money.

With a heritage of cost control and a growing corporate focus on environmental stewardship, Price Chopper constantly looks for new ways to reduce overhead, particularly energy usage. "All of our new stores are being constructed to meet LEED Green Building certification requirements," said Benny Smith, director of energy management for Price Chopper. "We recognized that a lot of energy was used to heat the glass doors of our freezer and refrigerated cases to prevent fogging. Not only did the doors have to be heated around the clock, but because the heat elevated the temperature of the cold air within the cases, our compressors experienced an extra burden."

In addition to demanding significant amounts of power to heat the 80 to 100 glass doors in each store, the system did not work particularly well. "In warm, humid summer periods, when a shopper opened a freezer case door, it tended to fog up," said Smith.

"Then, when the next shopper came along and couldn't see into the case, that person had to hold the door open while making a selection. Energy was lost while the doors were held open, but equally important, the shopping experience was impacted."

### Solution

#### Turning off the heat with Lexan Constant Clear anti-fog freezer film

When SABIC Innovative Plastics visited Price Chopper to introduce Lexan Constant Clear film - a crystal-clear, adhesive, anti-fog film for freezer and refrigerated glass doors - Smith and his team decided to give the solution a try.

"We suggested the film as an easy retrofit solution to Price Chopper's existing door heaters," explained Ken Rudolf, marketing manager Americas for SABIC Innovative Plastics. "We provided and installed the film on a five-door freezer case and turned off the heat to the glass on the doors. Price Chopper then tracked and compared the energy usage over a period of two years."

Lexan Constant Clear film is a one-side-coated polycarbonate (PC) film with an adhesive backing that offers long-term anti-fog performance, chemical and abrasion resistance, and outstanding optical clarity. It can be screen printed or digitally printed for in-store branding.

### Benefits

#### Lower energy consumption and higher anti-fog performance

The test of Lexan Constant Clear film yielded impressive results. "By turning off the heat to the doors that heat the glass, we cut the electrical usage for the five-door case by 400 watts," said Smith. "Based on these numbers, we expect to recoup the investment in Lexan Constant Clear film in as little as 10 months, depending on the store." Further, although Price Chopper did not quantify the reduced impact on compressors, anecdotally it is clear that the SABIC Innovative Plastics solution significantly lightens the load on compressors – potentially extending their useful life and avoiding maintenance issues.

Another important benefit of the anti-fog film is an improved shopping experience for consumers. “In spite of the heaters, our doors tended to fog up as soon as they were opened in warm, humid weather, making it hard to see the items inside the case,” Mark Hankle, manager of mechanical engineer for Price Chopper noted. “With the Constant Clear film, the doors stay fog-free, even after they are held open for a period of time. This improved clarity helps Price Chopper display our frozen and refrigerated items to their best advantage.”

Still another positive result of the Price Chopper trial was the high performance of the film over the two-year period. “We have had no quality issues at all – the film has stood up to constant use without any sign of degradation, separation or scratching,” said Hankle Installation by a certified professional, which requires only about a half-day per store, is the key to top performance over the long term.

Price Chopper has completed installation of the SABIC Innovative Plastics’ film in 10 stores in New York State, and plans to expand this retrofit project to its other stores.

“Price Chopper is aggressively pursuing many avenues to lighten the environmental impact of our stores, and the anti-fog film project is an important component of this effort,” Smith said. “Constant Clear film not only enables us to cut our energy usage, but delivers improved anti-fog performance compared to door heaters. SABIC Innovative Plastics has developed a winning product that can make a big contribution to the green building movement.”

Details at  
[www.pricechopper.com](http://www.pricechopper.com)