



# Acrylic sheet product streamlines P-O-P fabrication

FABRICATION  
AND PLASTICS  
MACHINING

by Paul Hendley

**T**oronto, ON-based Modern Age Plastics, a major fabricator of P-O-P displays, store fixtures and interior signage, has saved an average 10 percent in overall fabrication costs after switching to a new acrylic sheet product. The acrylic sheet combines the high-end optical clarity of acrylic with superior impact strength, and it fabricates faster and more easily than standard acrylic. For Modern Age Plastics, the material has helped streamline manufacturing while enabling production of more elegant displays with improved strength.

"What our customers want are products with a high end, modern look that also offer improved quality and durability," says Robert Galamaga, partner at Modern Age Plastics. "We have a lot of expertise, and our customers look to us to make recommendations for materials," he adds. The acrylic sheet has proven so

successful for Modern Age Plastics that the company now uses it for numerous diverse applications ranging from brochure holders, interior signs, high-end security holders, to golf cart windshields and industrial guards.

## *Ease of fabrication*

While Galamaga estimates the material has saved an average 10 percent in total costs, in some cases the savings are much higher. A significant part of this is due to the material's ease of fabrication when compared to standard extruded sheet products.

"We can machine this product up to four times faster on CNC machines," Galamaga says. He explains that extruded sheet typically runs at about 100 inches per minute, while this new acrylic sheet can run up to 400 inches per minute, depending on sheet thickness. "That is very significant for us because 70 to 80 percent of our product line comes off of CNC machines. It machines like butter — it doesn't chip or melt, and the faster you go, the better it is."

For one large store signage order, Modern Age Plastics used the new product with a thickness of 2mm instead of an extruded sheet product that was 3mm thick. The signs, designed and project managed by Toronto-based EurOptimum display, were manufactured for the Bay, Canada's largest department store. In the case of these signs, thinner proved to be stronger. "This was a massive job of about 700,000 pieces, and even though we were using a thinner sheet we were still able to produce a much stronger store fixture."

Modern Age Plastics has been able to use the acrylic sheet product for applications where there are a large number of cut-outs. "We had a case where we were producing a product with many interior holes," Galamaga says. "It would normally be subject to breakage, but this material stood up very well."

Modern Age typically uses methylene chloride and other mixes for bonding

and cementing, and the results with the new sheet are "excellent" in Galamaga's words. The product cements easily to non-acrylic materials, a feature that has reduced costs for Modern Age. For example, the company cuts expanded lightweight PVC letters for elevated signage, and it is able to solvent bond the letters to this acrylic sheet easily. "This gives us an advantage because those PVC letters are lightweight and cost effective to machine," Galamaga says.

Modern Age generally prefers diamond cutting over flame polishing to avoid stressing the material, and the results have been positive. "This material diamond polishes very well; it can even look like crystal on the edge," Galamaga reports. "When we bond the material to a diamond-polished edge, we get very few bubbles. It almost looks like a molded piece."

## *Reduced breakage saves costs*

For Modern Age Plastics, the greatest savings for its customers — up to 30 percent or more in some cases — result from reduced breakage, especially during shipping. When Modern Age's customers purchase a certain number of displays, they usually build in a factor for breakage. As a result of the acrylic sheet's strength, fewer extras need to be manufactured. "No matter what you make, someone will lose it or crush it, but with this material you don't have as many problems," Galamaga says. For some applications that do not require large volume packaging, the material's light weight can also contribute to reduced shipping costs.

Modern Age considers the new sheet the material of choice for applications requiring superior strength and optical clarity. Overall, it has enabled them to provide additional value to their customers. ■



Modern Age Plastics streamlined manufacturing by using ACRYLITE PLUS® acrylic sheet from Evonik CYRO LLC for a large signage order for the Bay, Canada's largest department store.

For more information about this new sheet product, contact: Evonik CYRO LLC, 379 Interpace Parkway, Parsippany, NJ 07054 USA; (800) 631-5384, (973) 541-8000, fax (973) 541-8447, [www.cyro.com](http://www.cyro.com).