Styrene Classification Tops Comfort Line's Concerns

RF: How many employees do you have?
RS: Comfort Line employs roughly 150 people at our plant and offices in Toledo, Ohio.

RF: What is the nature of your company?
RS: In addition to our vinyl window and patio enclosure product lines, Comfort Line manufactures pultruded fiberglass window and patio door systems in the fenestration industry. This includes two complete product families of slider, casement, picture window, and double hung tilting windows. Additionally, Comfort Line supplies pultruded lineals and private-label product to other manufacturers and resellers in the window and door industry. All our fiberglass products are offered in stock colors as well as custom and two-tone finish. Comfort Line's core strengths are window and door system design, and pultrusion technology to produce complex thin-walled shapes including multiple hollows and fine detail. Therefore, we offer a window system entirely framed in fiberglass. This is somewhat unique, as most "fiberglass" window systems on the market today are actually fiberglass-clad wooden windows.

RF: What is your company's background?
RS: Comfort Line began under the name of Winter Seal in 1954 as a supplier of aluminum window systems and later vinyl systems.

RF: How has it evolved from its beginnings?
RS: As the vinyl industry matured and margins shrank, Comfort Line again became an innovator of window systems by becoming the first producer of pultruded fiberglass windows in America. At Comfort Line we now find ourselves in the enviable position at the beginning of a strong growth curve. Interest in fiberglass window systems is mushrooming. This is evidenced by the fact that in 2004, AAMA (the American Architectural Manufacturers Association), formed a new fiberglass materials council to address standards development. Previously fiberglass was treated either as a subcategory of vinyl, or else in the "other materials" category. Pultruded fiberglass is currently the best available framing material for window and door systems. It is stronger than aluminum, more durable than vinyl, and is stable enough to apply veneers and custom paint, thereby simulating the natural beauty of wood. Best of all is the very low thermal expansion and contraction of high-glass-content pultruded lineals, which is almost identical to that of the insulated glass unit, resulting in a superior seal and low thermal conductivity. The thermal efficiency and heat stability of fiberglass makes these windows particularly well suited for Sunbelt applications. In addition, Comfort Line has tested products to Air/Water/Structural design pressures of 50psi, making them suitable for coastal applications. We are also selling systems into the commercial market. This was previously the exclusive realm of aluminum, but with current and emerging energy codes, commercial builders are actively pursuing alternatives to aluminum.

Robert Spaans
Pultrusion Technical Manager
Comfort Line
Toledo, Ohio

RF: How did you get started in the industry?
RS: In 1994, after finishing graduate studies in chemical engineering at the University of Alberta in Edmonton Canada, I met Gary Steadman who was then Director of Engineering for ZCL Composites, an Edmonton based company. ZCL principally manufactures large underground fuel storage tanks up to 100,000 liters capacity and has a 95% market share for fiberglass tanks at service centers in Canada. They use filament-winding technology originally acquired from Owens Corning, and chop/spray technology licensed from Xerxes. I met Gary at an inaugural meeting of the Canadian Plastics Industry Association and he invited me to come see their new operation where they were pultruding planks for a maintenance-free residential deck system. There were numerous technical challenges to overcome and I was invited to become their Process Engineer. Over the next few years we addressed a number of the problems in the process; however, we did not have deep enough pockets to develop the market so the equipment and product line were eventually sold to a building industry supplier in Ontario. In 1997, I went to Werner Company in Greenville, PA, a manufacturer of fiberglass, aluminum, and wood ladders. As a Composites Engineer I worked on pultrusion resin formulations, tooling design, speed increases, rail design, and other efficiency improvements through the application of six-sigma methodologies. Being the largest manufacturer of pultruded ladder rail enabled us to focus and optimize the U-channel and C-channel shapes for high efficiency production. In 2004, I joined Comfort Line as Pultrusion Technical Manager. The position offers an interesting challenge because window shapes are so complex, and the industry appears poised for growth.

RF: What obstacles does your company face today in the regulatory or technical arenas?
RS: The classification of styrene as a carcinogen will be a particular regulatory challenge. Despite sound research by SIRC to the contrary, OSHA seems intent to base their judgments on inconclusive data and questionable test methods. In the technical arena, the lack of a design guide for fiberglass limits Professional Engineers from performing design calculations. It is difficult to develop relevant codes and judgments are often made by local inspectors in a standards vacuum. The Pultrusion Industry Council, a sub council of the ACMA, is actively pursuing funding for the development of the design guide, so called the LRFD (Load and Resistance Factor Design).

RF: What are your marketing efforts?
RS: Comfort Line sells through a network of distributors, and has a presence at major architectural and remodeling trade shows. Most recently we have formed an agreement to sell our product through Menards, starting with two urban concept stores in St. Paul and Chicago.

RF: What development or research would you like to see happen to improve the industry?
RS: I previously mentioned the development of the LRFD, which would open up many new markets for our industry. Valuable developments in the materials field would include cost-effective alternatives to styrenated resins and more consistent non-woven inputs. Significant variations in fiber density of non-woven reinforcement (surfacing mat) leads to rejected parts and downtime.

RF: Where do you see your business in five years?
RS: We see pultruded fiberglass window and door systems in the same place that vinyl was years ago. There is significant potential, and we envision double-digit growth for years to come.

Roxanne Fraver is CM *Magazine's Marketing and Circulation Coordinator: 703.525.0511;* rfraver@acmanet.org.