



The Competitive Edge

BEC Conference Gives Glazing Contractors a Leg Up with Industry Know-How
By Megan Headley and Ellen Rogers

More than 400 glazing contractors filled the Paris Hotel in Las Vegas in March with the goal of learning more about their industry and where it's headed. The Building Envelope Contractors (BEC) Conference, sponsored by the Glass Association of North America, armed those contractors with new knowledge on topics ranging from employee training to code updates to the latest industry trends.

The State of the Industry

The conference opened with an industry outlook from Hugo Lara, chief executive officer of the Monterrey, Mexico-based glass manufacturer Vitro, who offered his perspective on "The State of the Glass and Glazing Industry." Like other forecasters over the last year, Lara began with a relatively grim prediction, noting, "We've seen some recovery but we're not seeing the industry move back to the levels of 2007 ... for at least the next three to four years."

He presented several graphs showing past cycles, with the commercial drops and growth clearly following trends in residential construction. Then he of-

fered a realistic forecast of the residential market: "We believe it hasn't hit rock bottom yet. There are a lot of people who say it's there, but we expect to not see a recovery in the residential market until the end of this year."

Tougher yet for glass companies, while there's less demand for product due to the down economy, Lara says the market is still saturated with too much product.

"Even though there have been a lot of shutdowns in the last years, especially in the last three years, there's still an overcapacity in the market," Lara said. He added, "We believe that there's an overcapacity of eight float lines in the North American market still, even after all the shutdowns."

The Mexican market, he said, faced similar problems.

"Mexico's market is the same—there's also a huge excess capacity. More than two tanks are in excess capacity ... we need to export this."

For complex problems such as the supply outpacing the demand for glass, Lara encouraged his audience to "look for simple solutions in a complex market." He offered three such solutions to his audience.

"Number one is the logistics, the supply chain—we need to find a way to ship glass cheaper," Lara said. As a case in point he pointed to A-frame racks used to transport glass, saying, "the materials to ship glass are very expensive." He challenged his audience to come up with new solutions to this logistical issue.

His second suggestion was to offer more and promote better offline value-added products. Finally, he offered his third suggestion. "The markets are not growing in North America ... we need to look at the export market," Lara said. "We need to start talking and listening to our customers abroad ... showing the different options in the world, especially in what we call the third world where they need a lot of glass right now."

For example, "All the glass and glazing in Mexico is monolithic." He suggested considering providing value-added solutions to these markets, adding, "What may now be a commodity product for us may be a value-added product for our customers."

Another potential solution Lara offered for dealing with excess glass capacity in North America was promoting



More than 400 glazing contractors took part in GANA's educational Building Envelope Contractors Conference. Next year's BEC Conference is set for March 27-29, 2011, at the Paris in Las Vegas.

it to the new solar glazing market.

"There's a lot of hope among the float producers that the solar market is going to pick up. The only way we can see that capacity back up and running is if we have a big impact on the solar market," he said.

On the topic of solar, Lara echoed other industry speakers on this topic, "We don't know exactly where this is going to end." He added, "There are still a lot of things going on in the solar market that we need to understand." He pointed as well to cost restrictions, saying, "It's still very expensive to produce energy with solar." He pointed to regulations promoting solar energy as a way to make the product more affordable, while also suggesting that prices will come down as the supply chain becomes more cost-competitive.

But Lara also pointed his audience of glazing contractors toward other areas

in which to promote the use of glass. As GANA members had alluded to during the earlier Glass Week sessions (see page 46), "Glass is another building material—we need to find ways to substitute [glass for] current building materials."

His slides offered several unique examples of decorative glass products, notably in interior applications. "The interior application is very important," Lara said. He encouraged the industry to better promote to architects the interior applications of glass (see April 2010 USGlass, page 30, for related story).

"How we see the role of the glazier here is it's . . . to work together with the whole supply chain and present solutions to the final users of float glass," Lara said.

Energy Awareness Takes Center Stage

In a presentation on energy challenges facing the glass industry, GANA executive vice president Bill Yanek emphasized that the industry "must make the case for more glass." Several BEC speakers proceeded to do just that, in promoting the high-performance products on the market available to improve buildings' energy efficiency.

"Why is it important to reduce energy usage?" asked Mark Silverberg of Technoform Glass Insulation North America during a presentation on "The Future of High Thermal Performance Fenestration." He answered, "We want to reduce our dependence on imported energy and secure our economic independence." Some of the market trends and drivers behind this include an increase in demand for LEED-certified buildings and the fact that the energy-efficient return on investment has been documented to be several times better than installing new power generation equipment.

As an example, he pointed to a 2009 McKinsey Study, saying, "The conclusion was that energy efficiency offers vast, low-cost, no carbon energy resources" (visit www.mckinsey.com to learn more about the study).

And just how much of these savings

can come from commercial buildings? About 35 percent.

"And the biggest cluster comes from improvements to the building envelope and the HVAC system," Silverberg said. He explained that in commercial buildings 28 percent of energy use is for lighting and 35 percent is the HVAC.

And global energy codes are getting tighter and tighter. For example, the 2010 ASHRAE code is about 25- to 30-percent tighter than the 2004 version and will likely be about 50-percent tighter in 2016.

Much of this is being driven by a push to create a net-zero energy building.

"[The Department of Energy's (DOE)] target is to have a commercial net-zero building by 2025," Silverberg said. "Window performance will have to improve by 60 to 80 percent over current efficient windows."

"A lot has to change," added Albert Stankus, also of Technoform, during the presentation. "Improving the thermal performance of frames' overall conductivity is critical." Other aspects that Stankus says will see improvement include the glass package as well as the edge of glass, which impacts both U-factor and condensation. And one consideration for the commercial market, he pointed out, was overall compression resistance to ensure structural performance.

New glass technologies are being introduced all the time to help reach that zero energy goal—and among those being promoted by DOE are dynamic glazing technologies.

"There are a lot of drivers in the marketplace pushing us to more complex and active building facades," said Dr. Helen Sanders of SAGE Electrochromics Inc. during a presentation on electronically tintable glass in building envelopes.

Electronically tintable glass, she explained, offers a high-performance, dynamic façade solution that "will help you have a competitive advantage and beat some of the code issues coming down the pipe."

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She continued, "It allows you to vary the solar heat gain coefficient and visible light transmittance by touching a button."

Sanders also discussed some of the benefits of electronically tintable glass, including reduced operating costs of the building.

"[The glass] can reduce peak demand by up to 26 percent," she said. It also can provide up to 12 LEED points.

As far as installation, she said the product does not require much additional work for the glazier, as a subcontractor typically handles the electronics aspect.

"It's easy to install and change out," Sanders said.

Before reviewing several case studies that feature electronically tintable glass, she noted another benefit: "You can tint the glass and control the glare, but you never lose your connection to the outdoors."

Fred Millett with Pleotint also focused on dynamic glazing technologies with his presentation on "Adaptive Glazing – Sunlight Responsive Thermochromic (SRT) Window Systems: Lower Energy Use, Enhanced Daylight-

ing and Solar Heat Gain Reduction."

"The sun is the greatest influence on the building envelope," Millett said. "Sunlight is overestimated and underutilized."

Thermochromics, he explained, are another option.

"Thermochromics absorb the sun based on its position in the sky and as the glass is heated it controls the tint," he said. "This saves energy by reducing the HVAC, the need for lights and lowers peak electrical costs."

Millett said the product his company produces is made with a PVB laminate incorporating thermochromic properties and has all of the benefits of laminated glass.

Best Practices for Curtainwall Installation

Still, the energy-efficient products so much the topic of conversation mean little in the field if they're not installed properly, as Chris Fenwick of Kawneer Co. Inc. pointed out during a presentation on "Preventable Causes of Curtainwall Failures."

"It doesn't matter what the components can do for you if they're not in-

stalled properly, you're not going to get the same level of performance," he said.

Fenwick covered issues "that are exclusively within the control of a glazier out on the jobsite." He broke the most common problems down into two recurring categories: 1) critical perimeter and system seals; and 2) assembly and installation.

Fenwick advised glaziers to "maintain proper caulk joint on all four sides of the system . . . This may seem elementary to someone who's an industry veteran but we go out in the field and see this time and time again." He reminded the glaziers to use enough material to absorb the movement of the glass and building, to create a cushion between aluminum and other materials that might damage the material or its finish and prevent the cold air on the outside from affecting the materials on the inside.

He also recommended cleaning the contact points with proper solvents. "Do an adhesion test to make sure your materials adhere the way you want them to," Fenwick said.

He added, "Make sure you've got glaziers taking the instructions from the manufacturer and applying them in the appropriate places."

When it comes to assembly and installation, Fenwick said that the first thing to address "is something as simple as the shims." He explained, "They have to be in the proper location, need to be load-bearing, non-compression and highly durable. A good rule of thumb is to put your shims under the setting blocks on the horizontal."

Like shims, setting blocks need to be of the proper composition for the glass and system, and they need to be put in the right location. Using the wrong materials can put undue stress on either the lites or the spacer. A photo of a spacer bar pushed into an IGU air space demonstrated the problems that can occur with improper care to placement. He advised putting setting blocks at quarter points and reminded his audience not to block weep holes, inadver-



Hugo Lara, chief executive officer of Vitro, advised his audience of glazing contractors to look for "simple solutions to complex problems."

tently trapping water, with those blocks.

Fenwick also advised his audience to locate and torque pressure plate screws properly to prevent water and air infiltration.

BEC attendees also were treated to some tips for installation on retrofit projects. Dave Hewitt of EFCO Corp. presented "Tips to Work on Window Replacement Jobs." According to Hewitt, "It's an emerging, growing market" (see February 2010 *USGlass*, page 20). He added, "When you look at the economy we're in right now, it's very challenging . . . so look for opportunities to get into businesses you're not doing right now is very critical."

There are several reasons why an owner might wish to replace a building's windows. Improving energy performance or meeting LEED requirements is a common motivator today, but Hewitt said that hurricane impact and blast windows also are a growing category for replacement windows. "We're seeing windows in barracks all across the country being replaced," he said. In addition, Hewitt noted that there are a number of sources for obtaining federal funding for replacement windows in historic buildings (visit www.nps.gov for more information on the Federal Historic Preservation Tax Incentives program).

Next Hewitt provided a checklist of items to consider before bidding on a retrofit job. When you're dealing with retrofit you want to go out to the jobsite first. But the best thing to do, Hewitt continued, "Is have the window removed to see the interior of the wall cavity and see what you're dealing with."

He pointed out that when bidding a retrofit job it's important to factor in whether or not the framing materials will need to be removed. Hewitt also emphasized being aware of perimeter anchorage. "It's very important because often the surrounding structure isn't capable of supporting the load of the window," he said.

In addition, Hewitt reminded glaziers to consider whether installation certi-

fication requirements might be involved, such as the lead paint certification requirements for buildings constructed prior to 1978.

"Understanding how you're going to access the opening or the location," Hewitt said, is another important consideration. Will you be able to store your materials on-site? Will you have to work after hours because the building is occupied?

But with these suggestions in mind, Hewitt encouraged the listening glaziers to learn more about this potential market for glass installation. "The opportunities for historic renovation are huge right now," he said.

Developing Staff to Take on New Projects

John Rovi of Curtainwall Design and Consulting gave some advice on how to help employees sell with his presentation "Sell Yourself First, Your Company Second, Your Product or Service Third."

As he pointed out, "People do business with people they like," so selling yourself and creating the foundation of a business relationship really is the first step. To help create that foundation, he advised his audience to ask questions, noting, "he who ask questions controls the conversation." Even in answering the question, consider your next question, Rovi advised. Equally important, he said, is being a good listener. While it's important to have your pitch ready, it's important to focus on what the customer is saying and not waiting for your turn to talk.

In selling your company, Rovi added, the first step is to know your business well and whether you provide a product or a service. For the former, product knowledge is key and measurable data helps. For the latter, the relationship with your client is vital, and it helps to pay attention to the sales "experience."

According to Rovi, when it comes to selling that service, it's important keep in mind that your company has an "ex-

Top Preventable Curtainwall Failures

- Critical Perimeter and System Seals
- Maintain proper caulk joint all four sides
- Maintain continuity of perimeter seal
- Clean contact points as indicated
- Apply manufacturer's critical seals
- Assembly and Installation
- Shims should be of proper composition and in the proper location
- Setting blocks should be of proper composition and in the proper location
- Gaskets should be cut to proper lengths and installed as individual pieces
- Locate weep holes as designed
- Properly locate and torque pressure plate screws

perience" and be aware of what that is. Just consider, he said, that Wal-mart and Neiman Marcus both have clothes for sale but the experience their respective customers receive are considerably different. In addition, Rovi said, before ending any sales call, be sure that you and your client know the next step.

Finally, in selling that product or service, Rovi advised, "You must always answer 'so what,'" as in what is that product or service able to do for the customer.

"So what" did attendees get out of the BEC Conference? Tips for keeping their businesses ahead of the curve in the year ahead, new contacts to help them get there—and plans to attend next year's BEC Conference, March 27-29, 2011, once again at the Paris in Las Vegas. ■

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