

SPECIALIST INTERVIEW: STANDARDS, QUALITY CONTROL AND SAFETY MEASURES

THE NORTH AMERICAN CONSTRUCTION AND IG INDUSTRY



Mike Burk, North America Technical Representative for Sparklike

The following specialist interview was written to discuss standards, quality and safety measures mainly within the North American construction and insulating glass industry. This article was written based on an interview with Mr. Mike Burk, who has been working in the technical and training areas of the insulating glass industry for over twenty-five years. Mr. Burk is also the chair of the IGMA Glass Safety Awareness Council, and served as a member of the Technical Services Committee and a past chair of the Certification and Education Committee. In addition to many IGMA presentations, Mike Burk has presented glass safety seminars and webinars for GANA, Fenestration Canada, NGA, GED Integrated Solutions and Quanex Building Products.

“Currently, the need to control costs to remain competitive is a popular topic. Furthermore, there seems to be an ever-growing urge to find ways to improve quality and increase capacity. At the same time, there’s an evident concern regarding the need for more qualified, trained employees. In addition, there seems to be an increase in more automated equipment and processes. In other words, there are more robots to help maintain consistency and address the shortage of qualified workers.”

Q1: For the past 10 years, what have been the primary reasons and practices for IG manufacturers to conform with quality control and/or safety measures.

Mike Burk: Most manufacturers are concerned about their reputation and watch quality closely. The internet and social media can destroy a manufactures reputation quickly. To remain competitive, many manufacturers have increased their warranties. Twenty-year, lifetime to the original home owner and warranties which transfer to the next owner are becoming more common. Producers must maintain their quality to minimize warranty replacement liability.

In addition, safety measures continue to have high importance. Government organizations conduct inspections and levy large fines for safety violations. Lawsuits by survivors or family members of deceased workers can cost millions of dollars. Workers who report violations are protected from retaliation. Trade organizations discuss safety

issues, equipment and incidents at their meetings. Trade magazines and online pages contain safety articles on a regular basis. Although not always accurate or confirmed, the internet and social media spread places with dangerous conditions or accidents, often harming a manufacturer's reputation. But overall, business and management care about their works and don't want to see anyone hurt.

Q2. What is the current state of construction regulations / standards for quality and safety throughout the supply chain?

Mike Burk: The construction industry faces the same safety controls as manufacturers. Government organizations are heavily involved with inspection, regulations and investigations. However, construction incidents have been increasing. This increase is often attributed to inexperience, or younger or foreign workers. Again, construction companies, take a very active role to prevent or reduce accidents. These include daily safety updates, certification and testing of equipment as well as union activities to improve awareness.

Installation quality is always under scrutiny. Any unhappy customer can severely damage a company's reputation. ASTM Standards, building codes and building inspectors help to assure that buildings are built as designed. Organizations like American Architectural Manufacturers Association (AAMA) and the Glass Association of North America (GANA) offer courses such as "Installation Master" and other "Fenestration" courses to teach installers correct methods. They supply the industry with bulletins and documentations to explain correct methods.

Q3. Throughout the supply chain, what concrete changes can be expected due to the regulations? What will be required?

Mike Burk: Continuous and constant training is the best way to increase awareness. Trade Unions and companies have developed new training centers that simulate real world conditions. They have developed online training courses which simulate real activities and measure the comprehension of the student. These courses automatically focus on areas that require improvement. In the United States the Occupation Safety and Health Administration (OSHA) requires that companies supply instructions in a language the employee understands. The companies must document that these instructions have been understood.

Q4. Why is this change happening now? What initiated it?

Mike Burk: Before insulating glass, windows would last forever unless they broke. If the windows got dirty, they could always be washed. Insulating glass changed that. If the units fail or get fogged they cannot be cleaned, they must be replaced. This comes as a real shock to a home owner that paid so much to replace all the windows in their home. They still believe that the windows should last forever. Thankfully, because of good manufacturing processes, many windows with IG do last for a very long time.

I believe that the continuous improvements in automation, training and components will

be and have been beneficial. We already know that IG units correctly built today can last a lifetime. Advances in glass coatings, glass washing, along with advances in sealants have improved the longevity of insulating glass. The old saying “A rising tide raises all ships” might apply.

Furthermore, I think that in terms of production safety and quality control, all will improve. Automation will play an important role on quality and safety. Automation and robotics will improve consistency and quality. These devices will also drastically reduce the manual handling and lifting of glass, greatly reducing the risk to production workers.

Q6. How will this effect IG manufacturers/Quality Inspectors/Test labs /end-consumers?

Mike Burk: As I have said previously, to remain competitive and remain in business, manufacturers must produce good durable insulating glass. This involves continual training at all levels. Quality inspectors must understand work instructions, quality specifications and the reason for these specifications. Everyone should understand the tests completed at test labs. They must understand what causes failures. I believe that everyone in an IG manufacturing facility should be able to identify a bad IG unit. This includes manufacturing, quality, shipping, as well as order entry and accounting. I mean everyone.

In addition, I stress to many production workers and supervisors that “There are no shortcuts”. When a worker rushes to complete a task, quality or safety can suffer. Shortcuts can affect the life of the IG unit and the life of the worker. Rushing to do something to save a few minutes, places a worker at great risk. This can be as simple as not using the proper handling equipment or not wearing or utilizing the correct personal protective equipment. Rushing to complete the seal on an IG unit may cause it to fail prematurely.

Finally, I always try to stress that safety and quality are every individual’s responsibility. Quality is not just the responsibility of the inspector or a single production station. It is everyone’s responsibility. If you see a quality issue, you must say something to someone in charge. You cannot say “It’s not my job, It’s the quality person’s job”. It is your job. How long will you be in business if you continue to ship products that you recognize do not meet your company standards. They might only be just “good enough”.

It can be concluded that if the following items: continuous improvements in automation, training and components are addressed in the right proportion, product costs and profitability can all improve and lead to lower prices and an improved reputation. Manufacturers should recognize that if too much emphasis is placed on cost cutting, quality and reputation will suffer. If quality is stressed beyond reason, costs will become excessive.

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