

All Stacked Up

GANA's Laminating Industry Efforts Increase

by Urmilla Sowell

The Glass Association of North America (GANA) is the premier commercial architectural glazing association, with leaders of the glass and glazing industry comprising its seven divisions, including the Laminating Division. With these leaders of the industry working together, GANA is able to offer the glass and glazing industry exceptional educational resources that make a strong and immediate impact.

With the construction industry now focusing on multi-purpose applications, glazing applications are required to provide solutions to many needs. Additionally, integrated whole-building design practices through Leadership in Energy and Environmental Design (LEED®) are becoming more prevalent. With increased demand for safety and security glazing due to natural disasters, as well as enhanced security and rising energy consumption levels, architects and engineers are specifying laminated glazing as a practical, and aesthetic, solution to these needs.

BACK TO BASICS

Laminated glass typically is comprised of two or more lites of glass with one or more types of interlayer or plastic sheets (generally PVB, aliphatic urethane, liquid resin, ionomer, polycarbonate sheets, or PET films). The most important characteristic of laminated glass is the ability of the interlayer to support and hold the glass when broken. This provides for increased protection against fall-out and penetration of the building opening.

Laminated glass is currently specified in many applications, including detention, safety, solar control, ultraviolet radiation, sound control, security, sloped glazing and skylights, blast resistance and

hurricane resistance, as well as many different decorative applications. Laminated glazing materials are also used with increasing frequency in emerging specialty applications such as aquariums, animal enclosures, glass stairs, floors and sports stadiums.

KEEPING USAGE IN CHECK

With such an explosive expansion of laminated glazing applications, GANA's Laminating Division works with several national and international organizations to develop standards and specifications that affect the industry. Some of these organizations include the American Society for Testing and Materials (ASTM) International, the American National Standards Institute (ANSI), the United States Consumer Product Safety Commission (CPSC) and the International Code Council (ICC), which develops the International Building Codes.

Below is a listing of a few standards and specifications that GANA Laminating Division members are currently working to develop:

- ASTM C 1172 - *Standard Specification for Laminated Architectural Glass* focuses on quality standards for laminated glass. The majority of the revision effort is to make this standard specification easy for the end-user by describing in detail the visual inspection process;
- ASTM E06.51.25 WK17797 from the Skylight Human Impact Resistance Task Group carries the proposed title of *Test Method for Simulated Human Impact Effect on Unit Skylights, Protective Screens/Security Grills, Light Transmitting Plastic Roof Panels, and Smoke Vents with Light*

Transmitting Glazing to Determine Fall-Through Resistance. This test method is being developed with fall-through resistance in mind and will impact the glass skylight industry; and

- ASTM E 1996 - *Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Windborne Debris in Hurricanes* and ASTM E 1886 - *Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Storm Shutters Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials*. The focus here is on substitution criteria for impact protective products.

A WORK OF THEIR OWN

In addition to its work on national and international standards and specifications, GANA's Laminating Division also recently finished updating the *GANA Laminated Glazing Reference Manual* to include current industry requirements for laminated products (including windborne debris impact criteria and blast-resistant glazing.) New to the 2009 edition is a section on laminated glass usage in mirrors, as well as an update of all interlayer materials used in laminated glazing. *The GANA Laminated Glazing Reference Manual* also includes sections on the many different types of laminated glass applications. ■

the author



Urmilla Sowell is the assistant technical director of GANA. Ms. Sowell's opinions are solely her own and not necessarily those of this magazine.