



## **IBC CODE REVISIONS TO FIRE-RATED GLASS IN DOORS**

### **2012 IBC Limits Size of Fire-Rated Glass in Doors**

The 2012 IBC limits the size of fire-protection-rated glass, such as safety wired glass and safety glass ceramic, used in 60 and 90 minute doors to 100 sq. inches. If the door serves as a horizontal exit door in a fire wall it is further restricted to 100 sq. inches with no dimension exceeding 10 inches. 3 hour doors are not permitted to have fire-protection-rated glass.

20 & 45 minute doors still require fire-protection-rated glass up to the "Maximum size tested".



To increase the amount of glass in 60 and 90 minute doors requires fire-resistance-rated glass which is tested to ASTM E119 or UL 263 which also limits the transfer of heat. The same applies to transoms or sidelights in 60, 90 and 180 minute door assemblies. In 3 Hour doors, no glass is permitted of any type.

Unlike some code changes which are updated to reflect the latest fire-tested product parameters, this revision corrects confusion that has existed in the IBC since 2000 when an exception for fire-resistance-rated heat barrier glass allowing the maximum size tested was inadvertently extended to fire-protection-

rated glass. This change reflects the understanding that neither sprinklers or fire-protective glass can protect life safety or stop the spread of fire caused by the unrestricted transmission of radiant heat.

Fire resistive type glass providing radiant heat protection is available 7/8" or 1-1/8" thick for 60 minutes, and 1-1/2" thick for 90 minutes consisting of multiple layers of glass with an intumescent gel interlayer.

Fire resistive glass is made to order and may require custom framing due to the thickness.



## **Fire & Impact-Safety Rated Glass**

*Building Codes including the 2000 International Building Code (IBC) traditionally permitted wired glass installed in fire doors, fire windows and view panels to comply with ANSI Z97.1 Standard - Safety Glazing Materials Used in Buildings, rather than require compliance with the more stringent CPSC 16 CFR, Part 1201 - Safety Standard for Architectural Glazing Materials.*



*The 2003 edition IBC maintained the wired glass exemption from the CPSC 16CFR*

*1201 requirements in other than Education and Day Care use and occupancy classifications, effectively eliminating standard non-safety rated wired glass from these types of facilities.*

*The 2006 edition IBC completely removed the wired glass exemption for all buildings; requiring all individual glazed areas in hazardous locations, specifically including doors and sidelights, to pass the test requirements of CPSC 16 CFR 1201 and comply with category classification I or II.*

*Most jurisdictions have now adopted the 2006, 2009 or 2012 IBC requiring compliance with the CPSC 16CFR 1201 safety standard and*

*therefore doors are not permitted to have standard wired glass, which does not meet this standard, but should be furnished with other types of glass that comply such as SuperLite™ 1-W Safety-Rated (filmed) Wired Glass, or Pyran® Platinum F Safety-Rated (filmed) Glass Ceramic.*

*For more information on the glass mentioned in this article and offered by National Guard Products, please visit -*

[www.ngp.com](http://www.ngp.com)

Written By Roger Skold, AHC  
Technical Director  
National Guard Products