TECHNICAL SERVICES DOCUMENT **TSD-127**

Understanding Applications for Wired Glass

Over the last decade Wired Glass has been used in North America for various applications ranging from exterior facades of buildings, interior glazing, to fire rated door and window assemblies. To understand the acceptable use of Wired Glass, it is important to understand that the International Building Code, State Codes and Local Jurisdictions define where Wired Glass can be installed.

In General, the following is the acceptable applications for Wire Glass:

- Wired Glass can be installed in applications where annealed glass is acceptable providing it meets the design loads required,

- Wired Glass can be installed as a fire rated glass providing it is not installed in a hazardous location requiring safety glass. The maximum size allowed is 1296 square inches with a 45 minute fire rating. Wired Glass installed in Fire Rated applications, require labeling with its certification. This label will show that glass has been tested by an approved agency (i.e. Underwriters Laboratories). The company that cuts the wire glass is required to certify and label the Wire Glass

- Wired Glass can be installed in other locations depending on the Code that is adopted. The following chart compares the different versions of the International Building Code which will highlight these different locations

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	2000 IBC & 2003 IBC	2006 IBC & 2009 IBC	CAN/CGSB 12.11-M90
General Code Information	**IBC 2000** IBC References wired glass in Chapter 24 – Glass and Glazing. Section 2406.1 Exceptions allows polished wired glass in fire doors, fire windows and view panels in fire resistant walls of all buildings. Must pass at least minimum impact height test contained in ANSI Z97.1- 1994. **IBC 2003** IBC References wired glass in Chapter 24 – Glass and Glazing. Section 2406.1.2 Wired Glass cannot be used for any fire rated safety application or regular safety glazing application in Group E buildings (educational facilities including church schools, day care, etc.). Wired glass is allowed in fire doors, fire windows and view panels in fire resistant walls. Must pass at least minimum impact height test contained in ANSI Z97.1-1994. Section 2406.1.1 excludes Wired Glass from being used for regular safety glazing applications in any building due to requirements that safety glazing meet CPSC 16CFR 1201 Category I or II.	- References to wire in ***Chapter 24 – Glass and Glazing*** have been eliminated. - IBC 2006 & 2009, ***Section 2406.1: Human Impact Loads***, Individual glazed areas, including glass mirrors, in hazardous locations as defined in Section 2406.4 shall comply with sections 2406.1 through 2406.4 (Hazardous Locations) - IBC 2006 & 2009. ***Section 2406.2 – Impact Test*** - All glass installed in hazardous locations need to meet the requirements of CPSC 16 CFR 1201, glazing shall be tested in accordance with Cat I or Cat II as indicated in Table 2406.2(1)	Wired glass where permitted for use as an element of fire protection shall conform to the requirements of the National Building Code of Canada. Must pass at least minimum impact height test contained in CGCB 12.11-M90.
Acceptable Applications	- 45 Min Fire Rated Applications in Non Hazardous Locations - In applications where annealed glass is acceptable according to the code and building design IBC 2003 - In other than E occupancies in 45 minute Fire Rated doors providing the glass does not exceed **1296 square inches CV. 100 square inches CV for 60 and 90 minute doors.** CV= Clear View	- 45 Min. Fire Rated Applications in Non-Hazardous Locations - In applications where annealed glass is acceptable according to the code and building design	- 45 Min. Fire Rated Applications in Non-Hazardous Locations - In applications where annealed glass is acceptable according to the code and building design
AGC Certifications	**Fire -** UL Certification number **R11084** 3/4 hour tested to UL9 and UL10B		
	Safety - ATI test report number 93789.01-122-37 ANSI Z97.1-2004 Class C		
	Safety - ATI test report number 93789.02-122-37 CAN/CGSB 12.11 M90		

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Document History		
Action	**Date**	**Description**
r1Updated company name and sheet form	05/01/2014	From AGC FGNA to AGC Glass Company North America