

thirsty
THURSDAY
Quench your thirst for knowledge!

Where in the World is Wired Glass?



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Roetzel & Andress

April 16, 2020

MARK YOUR CALENDAR FOR THESE OTHER UPCOMING EVENTS

Now and Next: Surviving the COVID-19 Crisis
All About Small Business Loans
April 22, 2020 at 1:00 pm ET
webinar

Thirsty Thursday – Latest IBC Railing Requirements
May 21, 2020 at 1:00 pm ET
webinar

NGA Glass Conference
week of July 27, 2020

GlassBuild America, with Glazing Executives Forum
Sept 15-17, 2020
Las Vegas, NV

Learning Outcomes

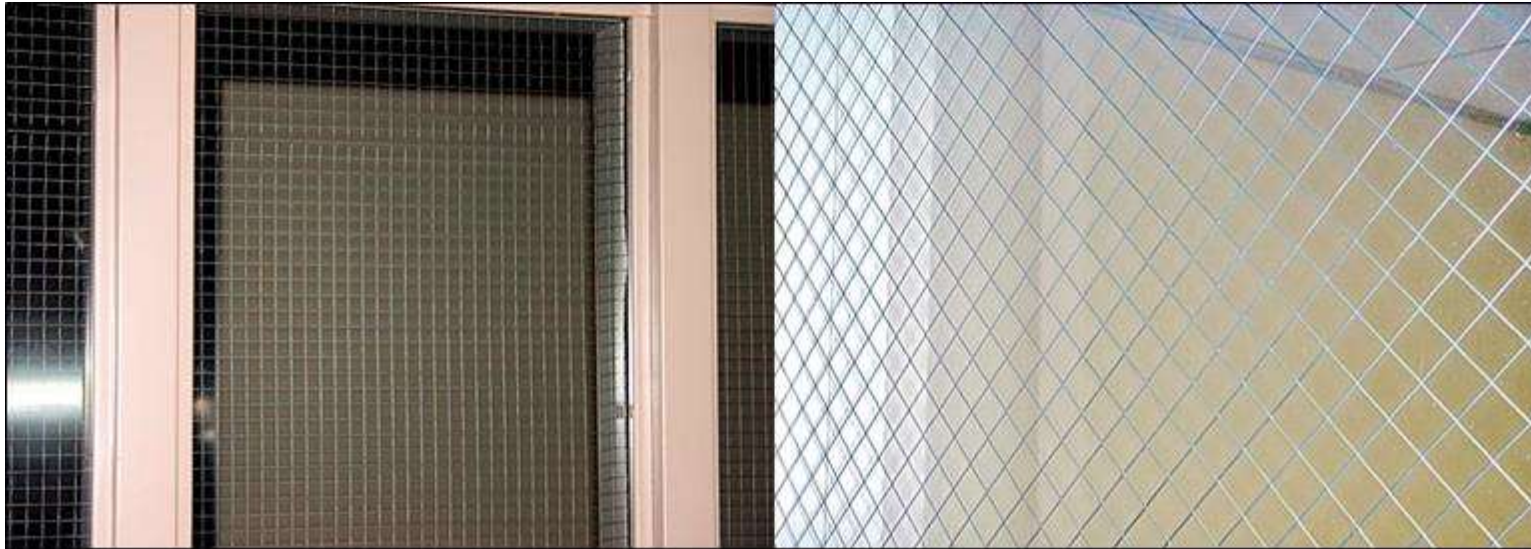
Upon completion of this webinar, you will be able to

- Define wired glass
- Describe where wired glass is installed
- Understand how wired glass behaves in a fire
- Describe how wired glass is used in safety glazing applications in the US and Canada
- Identify alternatives to wired glass



Wired Glass – What is it?

Polished annealed glass with a layer of wire embedded in the middle



Square (Georgian) pattern

Diamond pattern

Why is wire embedded in the glass?



What was/is wired glass used for?



Appearance of security:
Jewelry display cases



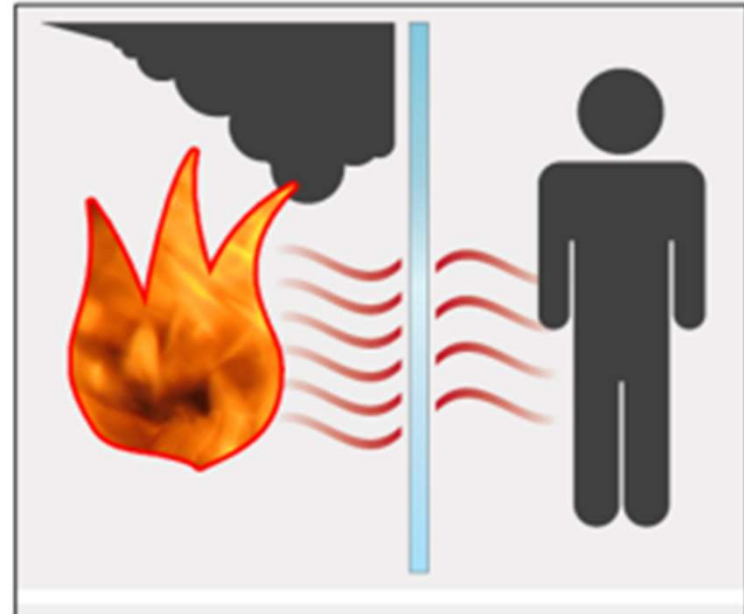
Prevent broken glass from falling:
Skylights



Prevent glass breakage during fire:
Fire-Rated applications

Why is wired glass used in fire rated applications?

Prevents flame, smoke and hot gasses from passing through for 45 minutes



What happens to wired glass in a fire?

Exposed to fire, wired glass cracks as its temperature reaches +/- 100° C or 212° F.



When the glass breaks, the wire in the glass holds it together in its frame.

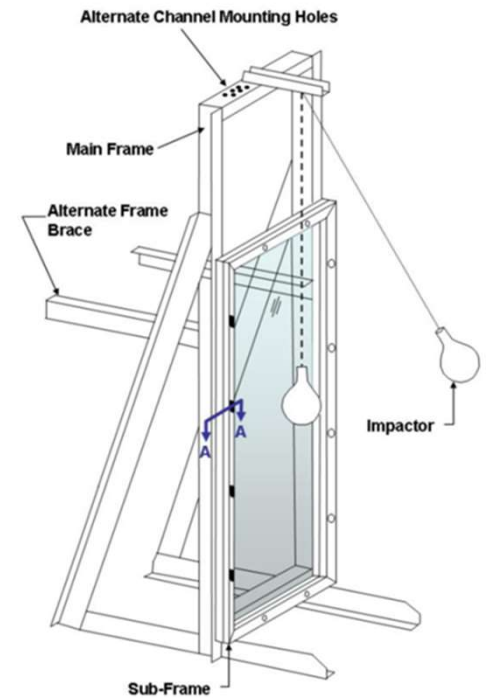
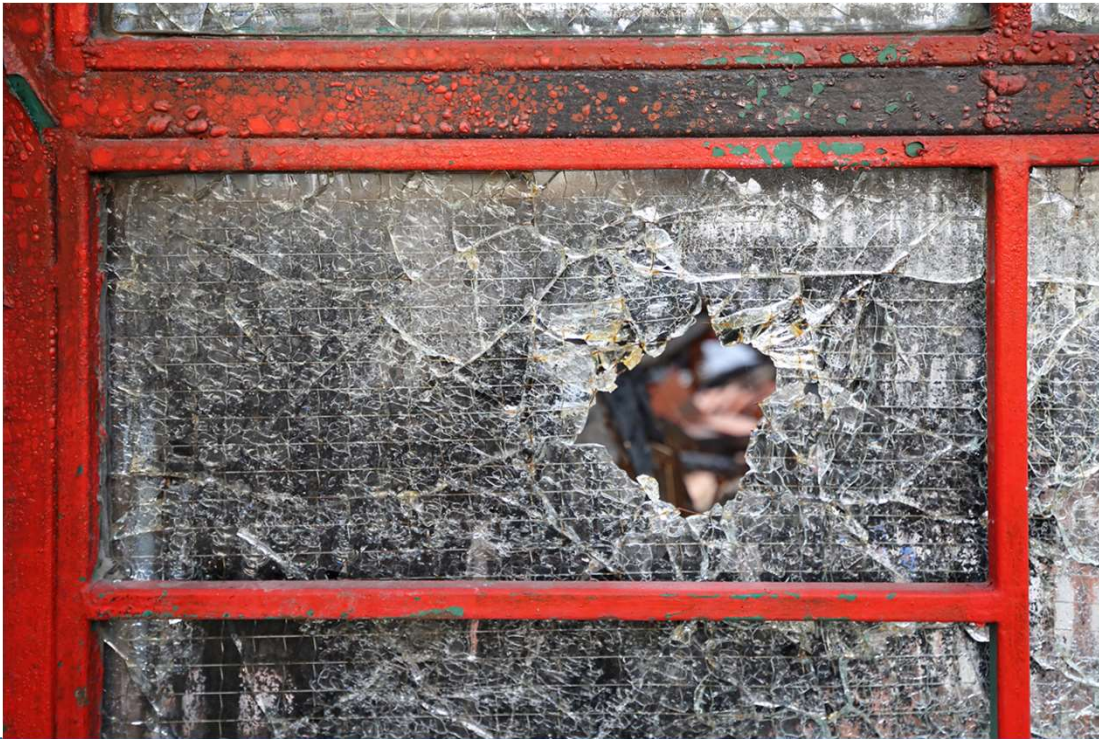


As temperature increases, the glass softens & heals the cracks, all while being held together by the wire.

Hose Steam Test



Is wired glass “Safety Glazing?”

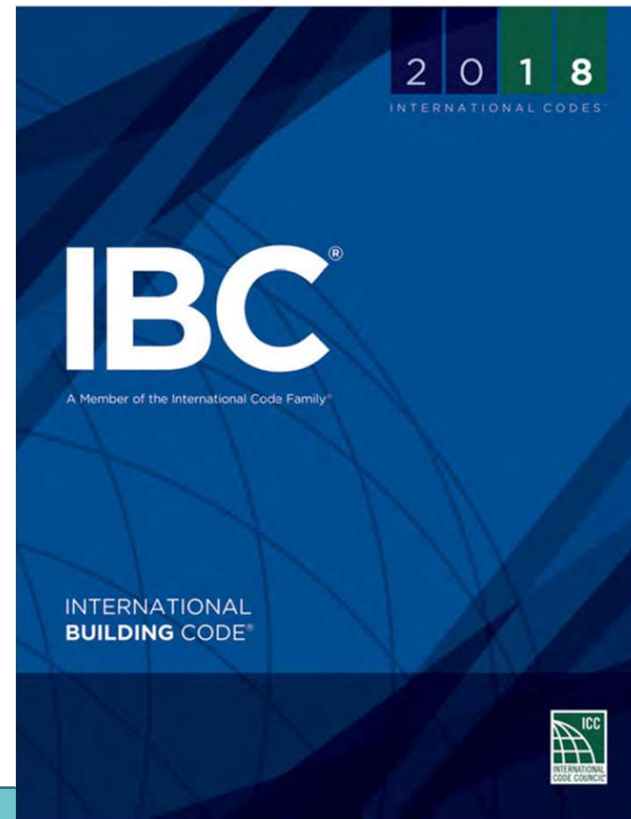


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Wired Glass Safety Glazing Regulations in the United States

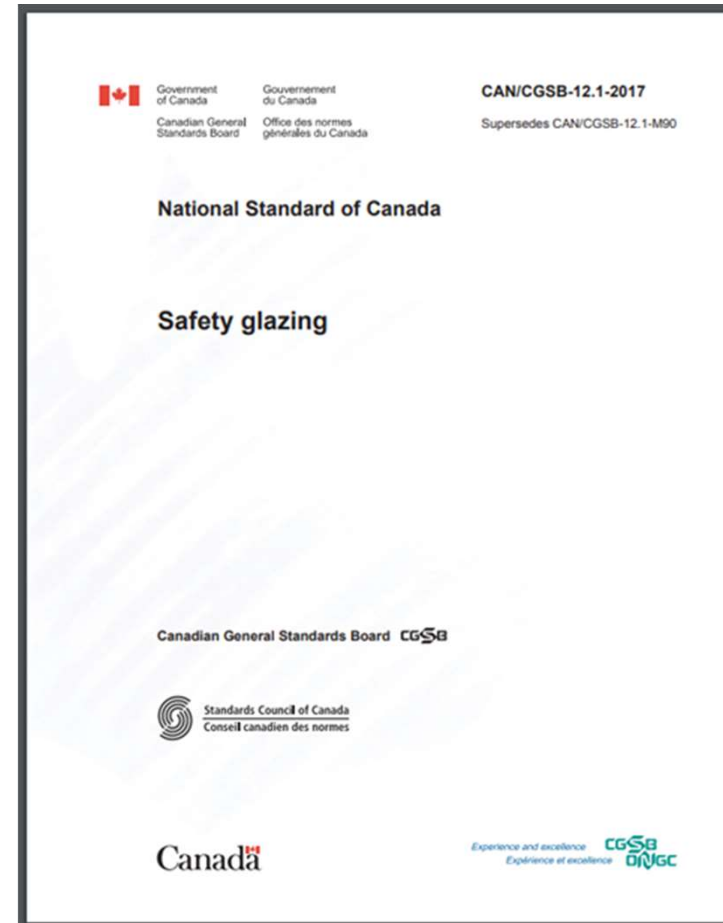
IBC Chapter 24 Glass and Glazing

- **Safety Glazing-** minimize cutting or piercing injuries
 - Tempered or laminated glass
 - Monolithic wired glass not permitted
 - Consumer Product Safety Commission/ANSI Z97.1



Wired Glass Safety Glazing Regulations in Canada

- **CAN/CGSB-12.1-2017 Safety Glazing**
 - Tempered or laminated glass
 - Monolithic wired glass not permitted
- Canadian Commission on Building and Fire Codes of the National Research Council of Canada
 - Task group voted to adopt CAN/CGSB-12.1-2017 in 2020 edition of CNBC



Can wired glass pass Safety Glazing standards?



Alternatives to Wired Glass

Glass-Ceramic:

- Passes fire exposure up to 3 hours
- Zero coefficient of expansion:
Does not expand or contract
- Passes hose stream test
- Requires organic coating in hazardous locations



Alternatives to Wired Glass

Intumescent Filled Glazing:

- Passes fire exposure up to 3 hours
- Prevents passage of flame, hot gasses and smoke
- Blocks thermal heat transfer
- Passes hose stream test
- Meets safety glazing requirements in hazardous locations



Pre-Existing Installations

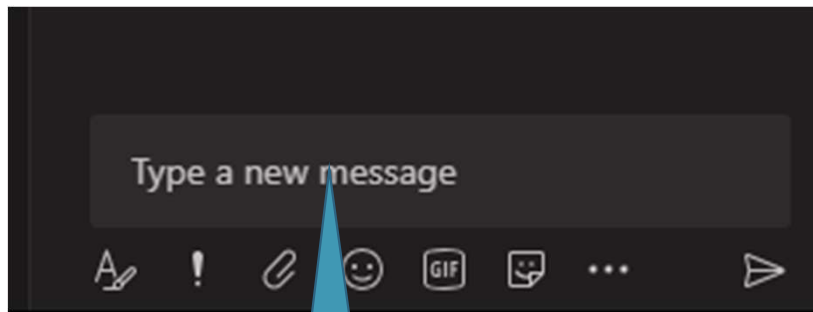
- Pre-existing installations in hazardous locations:
 - What should I do?
 - Nothing?
 - Replace?
 - Modify?
- What if a pre-existing installation breaks?
Is the result any different?



Questions?



The chat bar will open to the right of the presentation screen on teams



Click here to ask a question



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NOW AND NEXT: ALL ABOUT SBA LOANS

presented by Marco Terry, Commercial Capital LLC



**NOW AND
NEXT:**
SURVIVING
THE COVID-19
CRISIS

ALL ABOUT
SBA LOANS
4.22 1:00PM EST

AN **NGA**
WEBINAR



FORWARD

FOCUS: WHAT'S NOW,
WHAT'S NEXT
IN GLASS &
FENESTRATION

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