NGA GLASS CONFERENCE[™] ISLE OF PALMS | CHARLESTON



FEBRUARY 5-8, 2024





Codes & Standards Update



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Codes & Standards Update



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ASTM Update

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ASTM INTERNATIONAL ASTM Glass and Glazing Standards for the Building Industry Co-published with **National Glass Association Annual Digital** Subscription Content includes: Get 96 key standards - Forced-entry resistant systems - Glass - Flat glass Glazing

that span several Book of Standards volumes and ASTM committees. This is a comprehensive resource

co-published by ASTM International and National Glass Association encompassing the most widely used and referenced standards developed for the fenestration Industry. Built for architects, engineers, specifiers, manufacturers and everyone in the building envelope industry to have one resource offering standard test methods, guides, practices and specifications that govern the glass and glazing industry.

- Building seals and sealants - Environmental acoustics
 - Fenestration products

The compilation includes two new standards for forced-entry resistant systems developed by the members of ASTM Committee F12.10 on Systems Products and Services.





ASTM Update – C14 Glass and Glass Products

C0162	C14.01	Standard Terminology of Glass and Glass Products			
C0158	C14.04	Standard Test Methods for Strength of Glass by Flexure (Determination of Modulus of Rupture)			
C1256	C14.04	Standard Practice for Interpreting Glass Fracture Surface Features			
C1036	C14.08	Standard Specification for Flat Glass			
C1048	C14.08	Standard Specification for Heat-Strengthened and Fully Tempered Flat Glass			
C1172	C14.08	Standard Specification for Laminated Architectural Flat Glass			
C1279	C14.08	Standard Test Method for Non-Destructive Photoelastic Measurement of Edge and Surface Stresses in Annealed, Heat-Strengthened, and Fully Tempered Flat Glass			
C1349	C14.08	Standard Specification for Architectural Flat Glass Clad Polycarbonate			
C1376	C14.08	Standard Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass			
C1422/C1422M	C14.08	Standard Specification for Chemically Strengthened Flat Glass			
C1464	C14.08	Standard Specification for Bent Glass			
C1503	C14.08	Standard Specification for Silvered Flat Glass Mirror			
C1900	C14.08	Standard Practice for Weathering and Evaluation of Laminated Glass			
C1901-21e2	C14.08	Standard Test Method for Measuring Optical Retardation in Flat Architectural Glass			
C1908	C14.08	Standard Test Method for Pummel Adhesion Testing of Two-ply Laminated Architectural Glass			
C1914	C14.08	Standard Test Method for Bake and Boil Testing of Laminated Glass			
C0724	C14.10	Standard Test Method for Acid Resistance of Ceramic Decorations on Architectural-Type Glass			
C1649	C14.11	Standard Practice for Instrumental Transmittance Measurement of Color for Flat Glass, Coated and Uncoated			
C1650	C14.11	Standard Practice for Instrumental Reflectance Measurement of Color for Flat Glass, Coated, and Uncoated			
C1651	C14.11	Standard Test Method for Measurement of Roll Wave Optical Distortion in Heat-Treated Flat Glass			
C1652/C1652M	C14.11	Standard Test Method for Measuring Optical Distortion in Flat Glass Products Using Digital Photography of Grids			



ASTM Update – C24 Building Seals and Sealants C28 Advanced Ceramics

C0717	C24.01	Standard Terminology of Building Seals and Sealants				
C0920	C24.10	Standard Specification for Elastomeric Joint Sealants				
C1193	C24.10	Standard Guide for Use of Joint Sealants				
C1249	C24.10	dard Guide for Secondary Seal for Sealed Insulating Glass Units for Structural Sealant Glazing Applications				
C1281	C24.10	Standard Specification for Preformed Tape Sealants for Glazing Applications				
C1369	C24.10	Standard Specification for Secondary Edge Sealants for Structurally Glazed Insulating Glass Units				
C1392	C24.10	Standard Guide for Evaluating Failure of Structural Sealant Glazing				
C1394	C24.10	Standard Guide for In-Situ Structural Silicone Glazing Evaluation				
C1401	C24.10	Standard Guide for Structural Sealant Glazing				
C1564	C24.10	ndard Guide for Use of Silicone Sealants for Protective Glazing Systems				
C1087	C24.20	ndard Test Method for Determining Compatibility of Liquid-Applied Sealants with Accessories Used in Structural Glazing System				
C1265	C24.30	andard Test Method for Determining the Tensile Properties of an Insulating Glass Edge Seal for Structural Glazing Applications				
C0864	C24.73	andard Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers				
C1115	C24.73	Standard Specification for Dense Elastomeric Silicone Rubber Gaskets and Accessories				
	C 28 Standards					
C1678	C28.03	Standard Practice for Fractographic Analysis of Fracture Mirror Sizes in Ceramics and Glasses				



ASTM Update – D20 Plastics; E05 Fire Standards E06 Performance of Buildings

D0635	D20.30	Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position
D1435	D20.50	Standard Practice for Outdoor Weathering of Plastics
E0119	E05.11	Standard Test Methods for Fire Tests of Building Construction and Materials
E0084	E05.22	Standard Test Method for Surface Burning Characteristics of Building Materials
E0546	E06.22	Standard Test Method for Frost/Dew Point of Sealed Insulating Glass Units
E0576	E06.22	Standard Test Method for Frost/Dew Point of Sealed Insulating Glass Units in the Vertical Position
E2141	E06.22	Standard Test Method for Accelerated Aging of Electrochromic Devices in Sealed Insulating Glass Units
E2188	E06.22	Standard Test Method for Insulating Glass Unit Performance
E2189	E06.22	Standard Test Method for Testing Resistance to Fogging in Insulating Glass Units
E2190	E06.22	Standard Specification for Insulating Glass Unit Performance and Evaluation
E2269	E06.22	Standard Test Method for Determining Argon Concentration in Sealed Insulating Glass Units using Gas Chromatography
E2649	E06.22	Standard Test Method for Determining Argon Concentration in Sealed Insulating Glass Units Using Spark Emission Spectroscopy
E1186	E06.41	Standard Practices for Air Leakage Site Detection in Building Envelopes and Air Barrier Systems



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ASTM Update – E06 Performance of Buildings

E0283	E06.51	Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen			
E0330/E0330M	E06.51	Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference			
E0331	E06.51	Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference			
E0547	E06.51	Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference			
E0783	E06.51	Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors			
E0987	E06.51	Standard Test Methods for Deglazing Force of Fenestration Products			
E0997	E06.51	Standard Test Method for Evaluating Glass Breakage Probability Under the Influence of Uniform Static Loads by Proof Load Testing			
E0998	E06.51	Standard Test Method for Structural Performance of Glass in Windows, Curtain Walls, and Doors Under the Influence of Uniform Static Loads by Nondestructive Method			
E1233/E1233M	E06.51	Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Cyclic Air Pressure Differential			
E1300	E06.51	Standard Practice for Determining Load Resistance of Glass in Buildings			
E1424	E06.51	Standard Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure and Temperature Differences Across the Specimen			
E1425	E06.51	Standard Practice for Determining the Acoustical Performance of Windows, Doors, Skylight, and Glazed Wall Systems			
E1886	E06.51	Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials			
E1996	E06.51	Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes			
E2025	E06.51	Standard Test Method for Evaluating Fenestration Components and Assemblies for Resistance to Impact Energies			
E2112	E06.51	Standard Practice for Installation of Exterior Windows, Doors and Skylights			
E2268	E06.51	Standard Test Method for Water Penetration of Exterior Windows, Skylights, and Doors by Rapid Pulsed Air Pressure Difference			
E2319	E06.51	Standard Test Method for Determining Air Flow Through the Face and Sides of Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen			
E2395	E06.51	Standard Specification for Voluntary Security Performance of Window and Door Assemblies with and without Glazing Impact			
E2431	E06.51	Standard Practice for Determining the Resistance of Single Glazed Annealed Architectural Flat Glass to Thermal Loadings			
E2461	E06.51	Standard Practice for Determining the Thickness of Glass in Airport Traffic Control Tower Cabs			
F0588	E06.51	Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact			
F0842	E06.51	Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact			
E2099	E06.55	Standard Practice for the Specification and Evaluation of Pre-Construction Laboratory Mockups of Exterior Wall Systems			
E2353	E06.56	Standard Test Methods for Performance of Glazing in Permanent Railing Systems, Guards, and Balustrades			
E2358	E06.56	Standard Specification for the Performance of Glass in Permanent Glass Railing Systems, Guards, and Balustrades			
E2751/E2751M	E06.56	Standard Practice for Design and Performance of Supported Laminated Glass Walkways			
E0631	E06.94	Standard Terminology of Building Constructions			



ASTM Update – E33 Building and Environmental Acoustics; E34 Occupational Health and Safety; E60 Sustainability; F12 Security Systems and Equipment; F15 Consumer Products; F33 Detention and Correctional Facilities

E0090	E33.03	Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements			
E0336	E33.03	tandard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings			
E0413	E33.03	Classification for Rating Sound Insulation			
E1332	E33.03	Standard Classification for Rating Outdoor-Indoor Sound Attenuation			
E2249	E33.03	Standard Test Method for Laboratory Measurement of Airborne Transmission Loss of Building Partitions and Elements Using Sound Intensity			
C0634	E33.07	Standard Terminology Relating to Building and Environmental Acoustics			
E2875/E2875M	E34.10	Standard Guide for Personal Protective Equipment for the Handling of Flat Glass			
E2129	E60.01	Standard Practice for Data Collection for Sustainability Assessment of Building Products			
F1233	F12.10	Standard Test Method for Security Glazing Materials and Systems			
F1642	F12.10	Standard Test Method for Glazing and Glazing Systems Subject to Airblast Loadings			
F2248	F12.10	standard Practice for Specifying an Equivalent 3-Second Duration Design Loading for Blast Resistant Glazing Fabricated with Laminated Glass			
F2912	F12.10	Standard Specification for Glazing and Glazing Systems to Airblast Loadings			
F3006	F12.10	Standard Specification for Ball Drop Impact Resistance of Laminated Architectural Flat Glazing			
F3007	F12.10	Standard Test Method for Ball Drop Impact Resistance of Laminated Architectural Flat Glass			
F3038	F12.10	Standard Test Method for Timed Evaluation of Forced-Entry Resistant Systems			
F3057	F12.10	Standard Test Method for Electromagnetic Shielding Effectiveness of Glazings			
F3561	F12.10	Standard Test Method for Forced-Entry-Resistance of Fenestration Systems After Simulation Active Shooter Attack			
F2813	F15.42	Standard Specification for Glass Used as a Horizontal Surface in Desks and Tables			
F1915	F33.02	Standard Test Methods for Glazing for Detention Facilities			



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Codes & Standards Update



Tom Culp Birch Point Consulting NGA Energy Code Consultant



2024 IECC

- Consensus committees gave final approval to 2024 IECC last fall.
 - Marginal improvements in commercial and residential fenestration U-factor.
 - Credit for high performance windows, increased daylight area, automated shading, PV and BIPV
 - Strong push on decarbonization and electrification related to heat pumps, solarready, EV charging stations, demand response, on-site and off-site renewable energy (PV, BIPV).
- Appeals from gas industry, AHRI, BOMA, NMHC, Region VI code officials being heard later this month.
 - Mostly around electrification issues, and whether issues like demand response, renewable energy, electric-ready provisions are in scope or not.
 - We filed comments supporting renewable energy (PV, BIPV) as in-scope.
- 2024 IECC will be published after appeals are resolved.



ASHRAE 90.1-2025

The story of what did <u>not</u> happen.

- **1. New Fenestration Requirements**
- Continuing to do economic analysis on new criteria for both opaque assemblies and fenestration assemblies.
- With current component costs and energy savings data, only marginal changes to U, SHGC expected.
- However, also looking at including HVAC downsizing credit, and possibly social-cost-of-carbon. These change the economic analysis, and could push lower U and SHGC, but not settled yet.
- Updates on opaque insulation requirements will also affect spandrel, which is treated like a metal stud wall ... at least until we fix that problem.
- Trying to complete proposals for this summer to get into 90.1-2025.



ASHRAE 90.1-2025

The story of what did <u>not</u> happen.

2. Net-Zero Operational Carbon Appendix

- Developing a prescriptive appendix that jurisdictions can optionally adopt as a net-zero energy and net-zero carbon code. Pushed by IRA funding and overall policy goals.
- Set efficiency a notch higher (~10-15%), then determine how much renewable energy is required to get to net-zero.
- *But* was considering much lower window area limits by building type based on "typical". In Jan, we successfully redirected them so calculate PV appropriately but not change WWR limit.
- Pushes higher performance glazing, and glass in PV, BIPV.



Massachusetts Update

- New very aggressive Massachusetts Stretch Energy Code has now been in place since last July.
- Puts extremely aggressive requirements on curtain wall and window wall construction:
 Mandatory 0.25 U-factor, and aggressive overall envelope (wall + window) requirements.
- Two possible paths:



• Will market finally transition to triple glazing and VIG? (Will building owners pay for it?)

- or -



• Will window area be reduced in a wave of 'new age brutalism' with small punched openings?



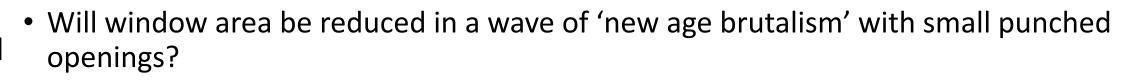


Massachusetts Update

Two possible paths:

• Will market finally transition to triple glazing and VIG? (Will building owners pay for it?)

- or -



So what's happening so far?

- Tentatively optimistic that the first path is winning.
- Anecdotal feedback is that vision area is not being reduced.
 - Engineering firms and architects are working with building owners to keep window area up, using very high performance systems. (Our messaging getting through about importance of occupant health and well-being?) 🜐
- But, also hearing that spandrel area is being reduced in some cases. (\mathbf{y})



Colorado update



- Colorado has new law requiring residential windows, doors, and skylights to meet Energy Star v7 criteria starting 2026.
 - Treated like an appliance standard manufacturer cannot sell unless qualifies.
 - Pushes 4th surface low-e, triple glazing (both thin triples and normal triples), medium or higher SHGC low-e in the north.
 - Questions about high altitude products and argon / krypton gas fill ... but there are solutions ...
 - pre-equalized IG units, mylar bags for transport, flexibility from high SHGC low-e.
 - We are working with PAWS and have provided a position statement in support.
- Colorado is also establishing new **Building Performance Standard** to update existing buildings, including windows.
 - Taking comments through Feb 15. <u>https://energyoffice.colorado.gov/bpc</u>



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Thom Zaremba Roetzel & Andress NGA Fire & Structural Code Consultant

- i. ICC School Proposals at the codes update
- ii. NFPA 80 issues this cycle
- iii. Ongoing CGSB Glass Committee meetings



NFPA 80

800 Standard for Fire Doors and Other Opening Protectives **2022**

NFPA

NFPA 80-2022 Edition Standard for Fire Doors and Other Opening Protectives TIA Log No.: 1762 Reference: 3.3.131, and A.5.2.4.2 Comment Closing Date: December 19, 2023 Submitter: Chad Beebe, American Society for Healthcare Engineering www.nfpa.org/80

1. Delete paragraph 3.3.131 to read as follows:

3.3.131 Trained Rolling Steel Fire Door Systems Technician. A technician employed in the rolling steel fire door industry with documented training by a recognized industry organization or by a manufacturer of a listed rolling steel fire door.

2. Revise Annex paragraph A.5.2.4.2 to read as follows:

A.5.2.4.2 Rolling steel fire doors are unique with respect to other fire door types because of the complexity of tension release and automatic closing systems of these doors as opposed to other types of doors that typically open and close entire units. Special training for periodic inspection and testing is necessary because of the multitude of components involved that must work together for the door to be tested and reset correctly. It is essential that the rolling steel fire door industry maintain oversight of any person involved in periodic inspection and testing of such products. When requested, such a person should be able to produce documented evidence of training. Recognized industry organizations and manufacturers of listed rolling steel fire doors with appropriate training materials and programs are viable options for training individuals about the proper performance of rolling steel fire doors and their



NFPA 80

Substantiation: The current text creates a restraint of trade issue. This was identified in the development of the 2025 edition as several other similar definitions were created. A technician should not be required to be employed in the rolling steel fire door industry. This places an unnecessary restriction and ability for building owners to employ people with the same skillset to perform the work where this is identified in the standard. The definition and related sections using the term creates a monopoly on the periodic inspection of rolling steel fire door systems.



NFPA 80



4.2.2*

New fire protection and fire resistance glazing shall be marked in accordance with Table 4.2.2, and such marking shall be permanently affixed.

Table 4.2.2 Marking Fire-Rated Glazing Assemblies

Fire Test Standard	Marking	Definition of Marking		
ASTM E119 or				
ANSI/ UL 263	W	Meets wall assembly criteria		
NFPA 257 <u>or UL 9</u>	ОН	Meets fire window assembly criteria, including the hose stream test		
NFPA 252, UL 10B, or				
UL 10C	D	Meets fire door assembly criteria		
	Н	Meets fire door assembly hose stream test		
	т	Meets 450°F (232°C) temperature rise criteria for 30 minutes		
	xxx	The time, in minutes, of fire resistance or fire protection rating of the glazing assembly		

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Canadian General Standards Board – Glass Committee

Voting Membership- September 12, 2023

Organization	Name	Interest	Status	Regional Description
Alliance of primary Fire Rated Glazing Manufacturers	Thomas Zaremba	Producer	Voting	International
Association de vitrerie et de fenestration du Québec (AVFQ)	Mathieu Audet	General	Voting	Provincial (QC)
BVDA Façade Engineering	Mark Brook	User	Voting	National
Canadian Home Builders' Association	Jack Mantyla	User	Voting	National
Consultant	Margaret Webb - CHAIR	General	Voting	International
Eastman Chemical Company	Julia Schimmelpenningh	Producer	Voting	International
Fenestration and Glazing Industry Alliance (FGIA)	Amy Roberts	Producer	Voting	International
Fenestration Canada	Terry Adamson	General	Voting	National
Ferguson Corporation	Brent Harder	User	Voting	National
Government of Alberta – Municipal Affairs	Mike Hill	Regulator	Voting	Provincial (AB)
Health Canada	Nicholas Shipley	Regulator	Voting	National
Morrison Hershfield Limited	Brett Pattrick	General	Voting*	International
National Research Council of Canada	Alex Hayes	General	Voting	National
Precision Glass Services Inc.	Michael Liversidge	Producer	Voting	National
R&D Associate Glass Division	Courtney Calahoo	General	Voting	Provincial (AB)
RDH Building Science Inc.	David Vadocz	User	Voting	Canada/USA
Read Jones Christoffersen Ltd.	Andrew Crosby	User	Voting	National
Salient Engineering	Brian Peters	User	Voting	National
Thinkform Architecture & Interiors Inc.	Simone Panziera	User	Voting	Provincial (ON)
Trulite Glass and Aluminum Solutions Canada ULC	Ray Wakefield	Producer	Voting	National
University of Toronto	Doug Perovic	General	Voting	Provincial (ON)
Vitro Architectural Glass Canada Inc.	Tyler Zinck	Producer	Voting	National
Westeck Windows and Doors	Kyle Cartwright	Producer	Voting	Provincial (BC)

*Voting for CAN/CGSB 12.20 only, will switch with Alternate member for 12.1 and 12.8 RED denotes requires confirmation still on that element





Canadian General Standards Board – Glass Committee

Alternate and Non-Voting Membership- September 12, 2023

Organization	Name	Interest	Status	Regional Description
AMS Inc.	John Kent	User	Non-Voting	International
Architect / Consultant	Sylvie Destroismaisons	User	Non-Voting	Provincial (QC)
Association de vitrerie et de fenestration du Québec (AVFQ)	Bethanie Cloutier	General	Alternate	Provincial (QC)
Fenestration and Glazing Industry Alliance (FGIA)	Amy Becker	Producer	Alternate	International
Government of Alberta – Municipal Affairs	Shuvra Talukder	Regulator	Alternate	Provincial (AB)
Health Canada	Ali Sherazee	Regulator	Alternate	National
Lingnell Consulting Services	Bill Lingnell	General	Non-Voting	International
Morrison Hershfield Limited	George Torok	General	Alternate	International
National Research Council Canada	Aziz Laouadi	General	Non-Voting	National
Ply Gem Canada	David Goldsmith	Producer	Non-Voting	National
Salient Engineering	Mike Harpell	User	Alternate	National
Canadian General Standards Board	Mark Schuessler	Х	Committee Manager	National
Canadian General Standards Board	Sohaila Moghadam	Х	Committee Manager	National

Summary of Members				
General Interest	7 (30.4%)			
Producers	7 (30.4%)			
Users	7 (30.4%)			
Regulators	2(8.7%)			
Total Voting	23 (100%)			
Alternates	7			
Non-Voters	4			
Total Members	34			

- The TC shall have a balance of interests represented by producers, users, regulatory bodies and general interest.
- Where possible, it should have representation from consumer groups and should also aim to have regional geographical balance.
- Ideally, membership should also include a range of diversity in various areas such as culture, age, language and gender.

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Canadian General Standards Board – Glass Committee

CAN/CGSB-12.20 Structural Design of glass for Buildings:

- 1. Currently withdrawn
- 2. Would replace ASTM E-1300 in Canada
- 3. Revision Schedule:
 - a. Draft by June 2024
 - b. Committee review complete Summer 2024
 - c. Resolve Committee comments September 2024
 - d. Submit for Public Review summer 2025



Canadian Glass Standards Board – Glass Committee

CAN/CGSB-12.1 Safety Glazing

Task Groups:

- a. Tempered Glazing
- b. Laminated Glazing
- c. Plastic Coated Glazing
- d. Organically Coated Glazing
- e. Other Considerations

Revision Schedule:

- a. Draft by April 1, 2024
- b. Resolve Committee Comments August 2024
- c. Submit for Public Review Fall 2024



Canadian Glass Standards Board – Glass Committee

CAN/CGSB-12.8 Insulating Glass Units

Task Groups:

- a. Weathering
- b. High humidity
- c. Volatile fog

Revision Schedule

- a. Revisions submitted to Committee for comment January 2025,
- b. Resolve Committee comments March 2025
- c. Submit for Public Review Summer 2025



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i. Potential changes to the IBC Ch. 7 Fire Rated Glazing Tables

ii. Proposed changes to the Canadian National Building Code re: Overheating

Nick Resetar Roetzel & Andress NGA Fire & Structural Code Consultant



2024 International Building Code Potential changes to the IBC Ch. 7 Fire Rated Glazing Tables

- The Fire Code Action Committee considered several proposed changes to the IBC Chapter 7 Fire Rated Glazing Tables for the upcoming code cycle
- The proposed modifications do not change the code itself, but rather clarify what markings are required for fire rated glazing assemblies
- One proposal approved by the FCAC concerns correcting an error to the "Other fire barrier" line item. The current table has no duration and this proposal adds in the required 45 minute rating
- The second proposal approved by FCAC adds the following language to the table in the "door vision panel size column": Fire-resistance-rated glazing tested to ASTM E119 or UL 263 in accordance with Section 716.1.2.3 shall be permitted, in the maximum size tested



2024 International Building Code Potential changes to the IBC Ch. 7 Fire Rated Glazing Tables

- Several additional proposals related to the table were presented to FCAC but FCAC ultimately declined to introduce/support them during the upcoming code cycle
- We have been informed that at least three of these proposals will likely be offered during the upcoming code cycle, but we will know more once code change submissions are published at the end of this month
- Regardless, we do not believe any of these proposed changes threaten industry objectives



Proposed changes to the Canadian National Building Code re: Overheating

- Proposed Change 1823 was submitted to amend Article 9.36.2.7 of Division B of the National Building Code of Canada (2020)
- Article 9.36.2.7 allows Code users to choose the U-factor or Energy Rating path to comply with the Code requirements for thermal characteristics of fenestration and doors
- According to the proponent, the 2020 code does not adequately address the risk of overheating "due to relationship between the solar heat gain coefficient of glazing and the fenestration and door area to gross wall area ration (FDWR)"



Proposed changes to the Canadian National Building Code re: Overheating

- Proposed change restricts SHGC to 0.45 in the prescriptive path when FDWR is <17% and to 0.40 in cases where FDWR is between 17%-22%.
- When FDWR exceeds 22% or when uses choose fenestration with SHGC higher than prescribed, they will have to use the performance path
- This would apply to residential homes and some smaller commercial properties, i.e. certain retail spaces, small office buildings, etc.
- This is an interesting proposal because it appears to be an energy issue, but is actually offered as a life safety issue which if accepted into the code, would be mandatory across Canada whereas the energy code is not