

Doors in 60-minute Fire Rated Applications

Under the IBC (International Building Code), there are very few applications where a 60-minute door is required in a 1-hour rated wall:

Excerpt from Table 716.5 – Opening Fire Protection Assemblies, Ratings and Markings

Type of Assembly	Required Wall Assembly Rating (Hours)	Minimum Fire Door and Fire Shutter Assembly Rating (Hours)	Door Vision Panel Size	Fire Rated Glazing Marking Door Vision Panel	Minimum Sidelite/Transom Assembly Rating (Hours)		Fire Rated Glazing Marking Sidelite/Transom Panel	
					Fire Protection	Fire Resistance	Fire Protection	Fire Resistance
Fire barriers having a required fire-resistance rating of 1 hour: Enclosures for shafts, exit access stairways, exit access ramps, interior exit ramps and exit passageway walls.	1	1	100 sq. in. ^{c, d}	≤ 100 sq. in. = D-H-60 ≥ 100 sq. in. = D-H-T-60 or D-H-T-W-60	Not permitted	1	Not permitted	W-60

c. Fire Resistance rated glazing tested to ASTM E-119 in accordance with Section 716.2 shall be permitted, in the maximum size tested.

d. Except where the building is equipped throughout with an automatic sprinkler and the fire rated glazing meets the criteria established in Section 716.5.5.

60-Minute Door Vision Panel Size Limits: Under the **2012 IBC**, where 60-minute fire doors are required, vision panels glazed with **fire protection rated glazing** (i.e. filmed and laminated ceramics, filmed wired glass and specialty tempered) are limited to 100 sq. inches. However, **fire resistance rated glazing** (i.e. ASTM E-119 tested fire resistive filled tempered units such as SuperLite II-XL) is not limited, and may be used to the maximum size tested (see Footnote 'c' in Table 716.5). This gives architects the opportunity to exceed 100 sq. inches in the vision panel and still meet code requirements.

Under the **2006 and 2009 IBC**, larger fire protection glazing vision panels may be used in 1-hour exit enclosure and exit passageway doors only where the building is fully sprinklered.

Important Note! *In the 2012 IBC, fire protection glazing used in the vision panel of a 60 minute door will always be limited to 100 sq. inches, whether the building is fully sprinklered or not.*

Sidelites and Transoms in a 60-minute Fire Rated Door Assembly

Excerpt from Table 716.5 – Opening Fire Protection Assemblies, Ratings and Markings

Type of Assembly	Required Wall Assembly Rating (Hours)	Minimum Fire Door and Fire Shutter Assembly Rating (Hours)	Door Vision Panel Size	Fire Rated Glazing Marking Door Vision Panel	Minimum Sidelite/Transom Assembly Rating (Hours)		Fire Rated Glazing Marking Sidelite/Transom Panel	
					Fire Protection	Fire Resistance	Fire Protection	Fire Resistance
Fire barriers having a required fire-resistance rating of 1 hour: Enclosures for shafts, exit access stairways, exit access ramps, interior exit ramps and exit passageway walls.	1	1	100 sq. in. ^{c, d}	≤ 100 sq. in. = D-H-60 ≥ 100 sq. in. = D-H-T-60 or D-H-T-W-60	Not permitted	1	Not permitted	W-60

The IBC also makes it clear that for the sidelites and transoms surrounding the 60-minute door assembly, **fire protection glazing** (i.e. filmed and laminated ceramics, filmed wired glass and specialty tempered) is not permitted. However, the code does allow 60 min. **fire resistance glazing** (i.e. ASTM E-119 tested fire resistive filled tempered units such as SuperLite II-XL) for the sidelites and transoms.

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Important Note! While this handout references the 2012 IBC Tables, the fire rated glazing requirements represented in the tables are clarifications of existing requirements of the 2006 and 2009 editions of the IBC. Therefore, the provisions in these tables apply in jurisdictions currently enforcing the 2006, 2009 and 2012 IBC.

If you have additional questions on this topic, or if you have other code-related questions, please send them to SAFTI FIRST at codesupport@safte.com. Our team of experts will be happy to help you select the correct, code-approved fire rated glass and framing products for any current or upcoming project that you may have.