| 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 ^b | FIRE-RATED GLAZING MARKING DOOR VISION PANEL ^{5, 6} | MINIMUM SIDELIGHT/ TRANSOM ASSEMBLY RATING (hours) | | FIRE-RATED GLAZING MARKING SIDELIGHT/ TRANSOM PANEL | |
| | | | | | Fire protection | Fire resistance | Fire protection | Fire resistance |
| Exterior walls | 3 | 11/2 | 100 sq. in. ^b | ≤ 100 sq. in. = D-H-90 | | | | |
| | | | | | Not Permitted | 3 | Not Permitted | W-180 |
| | | | | > 100 sq. in = D-H-W-90 | | | | |
| | 2 | 11/2 | Maximum size tested | D-H 90 or D-H-W-90 | 11/2 | 2 | D-H-OH-90 | W-120 |
| | | | | | Fire protection | | | |
| | 1 | 3/4 | Maximum size tested | D-H-45 | ³ / ₄ | | D-H-45 | |
| Smoke barriers | | | | | Fire protection | | | |
| | 1 | 1/3 | Maximum size tested | D-20 | ³ / ₄ | | D-H-OH-45 | |

TABLE 716.1(2)—continued OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

For SI: 1 square inch = 645.2 mm.

- b. Fire-resistance-rated glazing tested to ASTM E119 in accordance with Section 716.1.2.3 shall be permitted, in the maximum size tested.
- c. Under the column heading "Fire-rated glazing marking door vision panel," W refers to the fire-resistance rating of the glazing, not the frame.
- d. See Section 716.2.5.1.2.1.
- e. See Section 716.1.2.2.1 and Table 716.1(1) for additional permitted markings.

716.2.2.3.1 Glazing in doors. Fire-protection-rated glazing in excess of 100 square inches (0.065 m²) is not permitted. Fire-resistance-rated glazing in excess of 100 square inches (0.065 m²) shall be permitted in *fire doors*. Listed fire-resistance-rated glazing in a *fire door* shall have a maximum transmitted temperature rise in accordance with Section 716.2.2.3 when the *fire door* is tested in accordance with NFPA 252, UL 10B or UL 10C.

716.2.3 Fire doors. *Fire doors* installed within a *fire door assembly* shall meet the fire rating indicated in Table 716.1(2).

716.2.4 Fire door frames. *Fire door* frames installed as part of a *fire door assembly* shall meet the fire rating indicated in Table 716.1(2).

716.2.5 Glazing in fire door assemblies. *Fire-rated glazing* conforming to the opening protection requirements in Section 716.2.1 shall be permitted in *fire door* assemblies.

716.2.5.1 Size limitations. Fire-resistance-rated glazing shall comply with the size limitations in Section 716.2.5.1.1. Fire-protection-rated glazing shall comply with the size limitations of NFPA 80, and as provided in Section 716.2.5.1.2.

716.2.5.1.1 Fire-resistance-rated glazing in door assemblies in fire walls and fire barriers rated greater than 1 hour. Fire-resistance-rated glazing tested to ASTM E119 or UL 263 and NFPA 252, UL 10B or UL 10C shall be permitted in *fire door assemblies* located in *fire walls* and in *fire barriers* in accordance with Table 716.1(2) to the maximum size tested and in accordance with their listings.

716.2.5.1.2 Fire-protection-rated glazing in door assemblies in fire walls and fire barriers rated greater than 1 hour. Fire-protection-rated glazing shall be prohibited in *fire walls* and *fire barriers* except as provided in Sections 716.2.5.1.2.1 and 716.2.5.1.2.2.

716.2.5.1.2.1 Horizontal exits. Fire-protection-rated glazing shall be permitted as vision panels in *self-closing* swinging *fire door* assemblies serving as horizontal exits in *fire walls* where limited to 100 square inches (0.065 m²).

716.2.5.1.2.2 Fire barriers. Fire-protection-rated glazing shall be permitted in *fire doors* having a $1^{1}/_{2}$ -hour *fire protection rating* intended for installation in *fire barriers*, where limited to 100 square inches (0.065 m²).

716.2.5.2 Elevator, stairway and ramp protectives. Approved fire-protection-rated glazing used in *fire door* assemblies in elevator, stairway and ramp enclosures shall be so located as to furnish clear vision of the passageway or approach to the elevator, stairway or ramp.

716.2.5.3 Glazing in door assemblies in corridors and smoke barriers. In a 20-minute *fire door assembly*, the glazing material in the door itself shall have a minimum fire-protection-rated glazing of 20 minutes and shall be exempt from the hose stream test.

716.2.5.4 Fire door frames with transom lights and sidelights. Fire-protection-rated glazing shall be permitted in door frames with transom lights, sidelights or both, where a $\frac{3}{4}$ -hour fire protection rating or less is

a. Two doors, each with a fire protection rating of 1¹/₂ hours, installed on opposite sides of the same opening in a fire wall, shall be deemed equivalent in fire protection rating to one 3-hour fire door.