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## **2018 IBC 716 TABLES**

716.1(1) Marking Fire Rated Glazing Assemblies

716.1(2) Opening Fire Protection Assemblies, Ratings and Markings

716.1(3) Fire Window Assembly Fire Protection Ratings

The SAFTI FIRST recommended product found in these tables are not part of the 2018 IBC, but provided by SAFTI FIRST as guide for choosing and specifying the correct code approved product. If you have any questions regarding these tables, contact SAFTI FIRST at 888.653.3333 or send an email to [info@safti.com](mailto:info@safti.com).

## 2018 IBC Table 716.1(1)

### Marking Fire-Rated Glazing Assemblies

| Fire Test Standard           | Marking | Definition of Marking  | Recommended SAFTI FIRST Product<br>(not in IBC – added for easy reference)   |
|------------------------------|---------|--|--|
| ASTM E119 or UL 263          | W       | Meets wall assembly criteria.  | SuperLite II-XL 60-120<br>SuperLite II-XLB 60-120 (oversized/butt-glazed)<br>SuperLite II-XLM 60-120 (butt-glazed)   |
| ASTM E119 or UL 263          | FC      | Meets floor/ceiling criteria <sup>a</sup>  | GPX FireFloor System   |
| NFPA 257 or UL 9             | OH      | Meets fire window assembly criteria including the hose stream test.                          | SuperClear 45-HS/SuperClear 45-HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum by SAFTI FIRST<br>PYRAN Platinum F by SAFTI FIRST<br>PYRAN Platinum L by SAFTI FIRST          |
| NFPA 252 or UL 10B or UL 10C | D       | Meets fire door assembly criteria.   | SuperLite I<br>SuperClear 45-HS/SuperClear 45-HS-LI<br>SuperLite II-XL 45-90<br>SuperLite X-45/60/90<br>PYRAN Platinum F by SAFTI FIRST<br>PYRAN Platinum L by SAFTI FIRST |
|                              | H       | Meets fire door assembly "Hose Stream" test.   | SuperClear 45-HS/SuperClear 45-HS-LI<br>SuperLite II-XL 45-120<br>SuperLite X-45/60/90<br>PYRAN Platinum F by SAFTI FIRST<br>PYRAN Platinum L by SAFTI FIRST               |
|                              | T       | Meets 450° F temperature rise criteria for 30 minutes  | SuperLite II-XL 45-120   |
|                              | XXX     | The time in minutes of the fire resistance or fire protection rating of the glazing assembly |  |

For SI: °C = [(°F) – 32]/1.8.

a. See Section 2409.1

## 2018 IBC Table 716.1(2)

### Opening Fire Protection Assemblies, Ratings and Markings

| TYPE OF ASSEMBLY  | REQUIRED WALL ASSEMBLY RATING (HRS.) | MINIMUM FIRE DOOR AND FIRE SHUTTER ASSEMBLY RATING (HRS.) | DOOR VISION PANEL SIZE <sup>b</sup> | FIRE RATED GLAZING MARKING DOOR VISION PANEL <sup>c,e</sup> | Recommended SAFTI FIRST Product for Door Vision Panel (not in IBC – added for easy reference) | MINIMUM SIDELITE/TRANSOM ASSEMBLY RATING (HRS.) |                 | FIRE RATED GLAZING MARKING SIDELITE/TRANSOM PANEL |                 | Recommended SAFTI FIRST Product for Sidelite/Transom (not in IBC – added for easy reference)                    |
|---|--------------------------------------|---|-------------------------------------|---|---|---|-----------------|---|-----------------|---|
|   |                                      |   |                                     |   |   | Fire Protection                                 | Fire Resistance | Fire Protection                                   | Fire Resistance |   |
| Fire walls and fire barriers having a required fire resistance rating greater than 1 hour | 4                                    | 3   | See Note b                          | D-H-W-240   |   | Not Permitted                                   | 4               | Not Permitted                                     | W-240           |   |
|   | 3                                    | 3 <sup>a</sup>  | See Note b                          | D-H-W-180   |   | Not Permitted                                   | 3               | Not Permitted                                     | W-180           |   |
|   | 2                                    | 1-1/2   | 100 sq. in.                         | ≤100 sq. in. = D-H-90<br>>100 sq. in. =D-H-W-90             | SuperLite X-45/60/90<br>PYRAN Platinum F and L by<br>SAFTI FIRST<br><br>SuperLite II-XL 90    | Not Permitted                                   | 2               | Not Permitted                                     | W-120           | SuperLite II-XL 120<br>SuperLite II-XLB 120<br>(oversized/butt-glazed)<br>SuperLite II-XLM 120<br>(butt-glazed) |
|   | 1-1/2                                | 1-1/2   | 100 sq. in.                         | ≤100 sq. in. = D-H-90<br>>100 sq. in. =D-H-W-90             | SuperLite X-45/60/90<br>PYRAN Platinum F and L by<br>SAFTI FIRST<br><br>SuperLite II-XL 90    | Not Permitted                                   | 1-1/2           | Not Permitted                                     | W-90            | SuperLite II-XL 90  |
| Enclosures for shafts, interior exit stairways and interior exit ramps                    | 2                                    | 1-1/2   | 100 sq. in. <sup>c</sup>            | ≤100 sq. in. = D-H-90<br>>100 sq. in. =D-H-T-W-90           | SuperLite X-45/60/90<br>PYRAN Platinum F and L by<br>SAFTI FIRST<br><br>SuperLite II-XL 90    | Not Permitted                                   | 2               | Not Permitted                                     | W-120           | SuperLite II-XL 120<br>SuperLite II-XLB 120<br>(oversized/butt-glazed)<br>SuperLite II-XLM 120<br>(butt-glazed) |
| Horizontal exits in fire walls <sup>d</sup>   | 4                                    | 3   | 100 sq. in.                         | ≤100 sq. in. = D-H-180<br>>100 sq. in. D-H-W-240            | PYRAN Platinum F and L by<br>SAFTI FIRST  | Not Permitted                                   | 4               | Not Permitted                                     | W-240           |   |
|   | 3                                    | 3 <sup>a</sup>  | 100 sq. in.                         | ≤100 sq. in. = D-H-180<br>>100 sq. in. D-H-W-180            | PYRAN Platinum F and L by<br>SAFTI FIRST  | Not Permitted                                   | 3               | Not Permitted                                     | W-180           |   |

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| TYPE OF ASSEMBLY   | REQUIRED WALL ASSEMBLY RATING (HRS.) | MINIMUM FIRE DOOR AND FIRE SHUTTER ASSEMBLY RATING (HRS.) | DOOR VISION PANEL SIZE <sup>b</sup> | FIRE RATED GLAZING MARKING DOOR VISION PANEL <sup>d</sup>    | Recommended SAFTI FIRST Product for Door Vision Panel (not in IBC – added for easy reference) | MINIMUM SIDELITE/TRANSOM ASSEMBLY RATING (HRS.) |                 | FIRE RATED GLAZING MARKING SIDELITE/TRANSOM PANEL |                 | Recommended SAFTI FIRST Product for Sidelite/Transom (not in IBC – added for easy reference)           |
|--|--------------------------------------|---|-------------------------------------|--|---|---|-----------------|---|-----------------|--|
|  |                                      |   |                                     |  |   | Fire Protection                                 | Fire Resistance | Fire Protection                                   | Fire Resistance |  |
| Fire barriers having a required fire-resistance rating of 1 hour:<br>Enclosures for shafts, exit access stairways, exit access ramp, interior exit stairways, interior exit ramps and exit passageway walls. | 1                                    | 1   | 100 sq. in.                         | ≤100 sq. in.<br>= D-H-60<br><br>>100 sq. in.<br>= D-H-T-W-60 | SuperLite X-45/60/90<br>PYRAN Platinum F and L by SAFTI FIRST<br><br>SuperLite II-XL 60       | Not Permitted                                   | 1               | Not Permitted                                     | W-60            | SuperLite II-XL 60<br>SuperLite II-XLB 60 (oversized/butt-glazed)<br>SuperLite II-XLM 60 (butt-glazed) |
|  |                                      |   |                                     |  |   | <b>Fire Protection</b>                          |                 |   |                 |  |
| Other Fire Barriers  | 1                                    | 3/4   | Maximum Size Tested                 | D-H  | SuperClear 45-HS/HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum F and L by SAFTI FIRST         | 3/4   |                 | D-H   |                 | SuperClear 45-HS/HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum F and L by SAFTI FIRST                  |
| Fire Partitions / Corridor Walls   | 1                                    | 1/3 <sup>b</sup>  | Maximum Size Tested                 | D-20   | SuperLite I & I-XL<br>PYRAN Platinum F and L by SAFTI FIRST                                   | 3/4 <sup>b</sup>                                |                 | D-H-OH-45   |                 | SuperClear 45-HS/HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum F and L by SAFTI FIRST                  |
|  | 0.5                                  | 1/3 <sup>b</sup>  | Maximum Size Tested                 | D-20   | SuperLite I & I-XL<br>PYRAN Platinum F and L by SAFTI FIRST                                   | 1/3   |                 | D-H-OH-20   |                 | SuperClear 45-HS/HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum F and L by SAFTI FIRST                  |
| Other Fire Partitions  | 1                                    | 3/4   | Maximum Size Tested                 | D-H-45   | SuperClear 45-HS/HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum F and L by SAFTI FIRST         | 3/4   |                 | D-H-45  |                 | SuperClear 45-HS/HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum F and L by SAFTI FIRST                  |
|  | 0.5                                  | 1/3   | Maximum Size Tested                 | D-H-20   | SuperClear 45-HS/HS-LI<br>PYRAN Platinum F and L by SAFTI FIRST                               | 1/3   |                 | D-H-20  |                 | SuperClear 45-HS/HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum F and L by SAFTI FIRST                  |

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| TYPE OF ASSEMBLY | REQUIRED WALL ASSEMBLY RATING (HRS.) | MINIMUM FIRE DOOR AND FIRE SHUTTER ASSEMBLY RATING (HRS.) | DOOR VISION PANEL SIZE <sup>b</sup> | FIRE RATED GLAZING MARKING DOOR VISION PANEL <sup>d</sup> | Recommended SAFTI FIRST Product for Door Vision Panel (not in IBC – added for easy reference) | MINIMUM SIDELITE/TRANSOM ASSEMBLY RATING (HRS.) |                 | FIRE RATED GLAZING MARKING SIDELITE/TRANSOM PANEL |                 | Recommended SAFTI FIRST Product for Sidelite/Transom (not in IBC – added for easy reference)   |
|------------------|--------------------------------------|---|-------------------------------------|---|---|---|-----------------|---|-----------------|--|
|                  |                                      |   |                                     |   |   | Fire Protection                                 | Fire Resistance | Fire Protection                                   | Fire Resistance |  |
| Exterior Walls   | 3                                    | 1-1/2   | 100 sq. in. <sup>b</sup>            | ≤100 sq. in. = D-H-90<br><br>>100 sq. in. =D-H-W-90       | SuperLite X-45/60/90<br>PYRAN Platinum F and L by<br>SAFTI FIRST<br><br>SuperLite II-XL 90    | Not Permitted                                   | 3               | Not Permitted                                     | W-180           |  |
|                  | 2                                    | 1-1/2   | Maximum Size Tested                 | D-H-90<br>or<br>D-H-W-90                                  | SuperLite X-45/60/90<br>PYRAN Platinum F and L by<br>SAFTI FIRST<br><br>SuperLite II-XL 90    | 1-1/2   | 2               | D-H-OH-90   | W-120           | SuperLite II-XL 90<br>SuperLite II-XL 120<br>SuperLite II-XLB 120<br>(oversized/butt-glazed)<br>PYRAN Platinum F and L<br>by SAFTI FIRST |
|                  | 1                                    | 3/4   | Maximum Size Tested                 | D-H-45  | SuperClear 45-HS/HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum F and L by<br>SAFTI FIRST      | Fire Protection                                 |                 |   |                 |  |
| Smoke Barriers   | 1                                    | 1/3   | Maximum Size Tested                 | D-20  | SuperLite I & I-XL<br>PYRAN Platinum F and L by<br>SAFTI FIRST                                | Fire Protection                                 |                 |   |                 |  |
|                  | 1                                    | 1/3   | Maximum Size Tested                 | D-20  | SuperLite I & I-XL<br>PYRAN Platinum F and L by<br>SAFTI FIRST                                | 3/4   |                 | D-H-OH-45   |                 | SuperClear 45-HS/HS-LI<br>SuperLite II-XL 45<br>PYRAN Platinum F and L<br>by SAFTI FIRST   |

For SI: 1 square inch – 645.2 mm

- a. Two doors, each with a fire protection rating of 1-1/2 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.
- 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.

# 2018 IBC Table 716.1(3)

## Fire Window Assembly Fire Protection Ratings

| TYPE OF WALL ASSEMBLY   | REQUIRED WALL ASSEMBLY RATING (hours) | MINIMUM FIRE WINDOW ASSEMBLY RATING (hours) | FIRE RATED GLAZING MARKING     | Recommended SAFTI FIRST Product (not in IBC – added for easy reference)   |
|---|---------------------------------------|---|--------------------------------|---|
| Interior walls  |                                       |   |                                |   |
| Fire walls  | All                                   | NP <sup>a</sup>                             | W-XXX <sup>b</sup>             | SuperLite II-XL 60-120  |
| Fire barriers   | >1                                    | NP <sup>a</sup>                             | W-XXX <sup>b</sup>             | SuperLite II-XLB 60-120 (oversized/butt-glazed)   |
|   | 1                                     | NP <sup>a</sup>                             | W-XXX <sup>b</sup>             | SuperLite II-XLM 60-120 (butt-glazed)   |
| Atrium separations (707.3.6), Incidental use areas (707.3.7), Mixed occupancy separations (707.3.9) | 1                                     | 3/4   | OH-45 or W-60                  | SuperLite II-XL 60<br>SuperLite II-XLB 60 (oversized/butt-glazed)<br>SuperLite II-XLM 60 (butt-glazed)<br>If less than 25% of the wall area: SuperClear 45-HS/HS-LI, SuperLite II-XL 45, PYRAN Platinum, PYRAN Platinum F or L by SAFTI FIRST |
| Fire Partitions   | 1<br>0.5                              | 3/4<br>1/3                                  | OH-45 or W-60<br>OH-20 or W-30 | SuperLite II-XL 60<br>SuperLite II-XLB 60 (oversized/butt-glazed)<br>SuperLite II-XLM 60 (butt-glazed)  |
| Smoke Barrier   | 1                                     | 3/4   | OH-45 or W-60                  | If less than 25% of the wall area: SuperClear 45-HS/HS-LI, SuperLite II-XL 45, PYRAN Platinum, PYRAN Platinum F or L by SAFTI FIRST   |
| Exterior walls  | >1                                    | 1-1/2                                       | OH-90 or W-XXX <sup>b</sup>    | SuperLite II-XL-120/SuperLite II-XLB<br>Note opening limits per Table 705.8: SuperLite II-XL 90   |
|   | 1                                     | 3/4   | OH-45 or W-60                  | SuperLite II-XL 60  |
|   | 0.5                                   | 1/3   | OH-20 or W-30                  | Note opening limits per Table 705.8: SuperLite II-XL 45, PYRAN Platinum, PYRAN Platinum F or L by SAFTI FIRST   |
| Party wall  | All                                   | NP  | Not Applicable                 |   |

NP – Not Permitted

a. Not permitted except fire resistance rated glazing assemblies tested to ASTM E119 or UL 263, as specified in Section 716.1.2.3.

b. XXX = The fire rating duration period in minutes, which shall be equal to the fire resistance rating required for the wall assembly.