FIRE DOOR LISTING PROGRAM

Customer: CR Doors & Moulding LLC
Class: Fire Doors
Location: Springville, UT
Website: www.crdoors.net

Listing No. F451-1
Project No. F451-1 Edition 1

Effective Date: January 5, 2018
Last Revised Date: January 5, 2018

UL 10(b), Fire Tests of Doors Assemblies.
UL 10(c), Fire Tests of Doors Assemblies.
NFPA 252, Standard Methods of Fire Tests of Door Assemblies.

Product: 45 min Rated Positive Pressure Fire Doors
Markings: See FD001 - Fire Door Labeling requirements
Models: 45-MINUTE LAMINATED CORE PANEL AND FLUSH DOORS:

Minimum 1-3/4" Thickness

<table>
<thead>
<tr>
<th>Swing Type</th>
<th>Maximum Dimensions Width:</th>
<th>Length:</th>
<th>Panel Type:</th>
<th>Latching:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Swing</td>
<td>3'6&quot; (1067 mm)</td>
<td>9'0&quot; (2743 mm)</td>
<td>Flat or Raised</td>
<td>Single Point (Mortised or Cylindrical)</td>
</tr>
<tr>
<td></td>
<td>4'0&quot; (1219 mm)</td>
<td>7'0&quot; (2134 mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4'0&quot; (1219 mm)</td>
<td>8'0&quot; (2438 mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arched Top Single Swing</td>
<td>3'6&quot; (1067 mm)</td>
<td>9'0&quot; (2743 mm)</td>
<td>Flat or Raised</td>
<td>3 or 4 point (Active: Mortised or Cylindrical)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Inactive: Mortised (Manual) and Surface Mounted Flush Bolts)</td>
</tr>
<tr>
<td>Pairs</td>
<td>7'0&quot; (2134 mm)</td>
<td>8'0&quot; (2438 mm)</td>
<td>Flat or Raised</td>
<td>4 point (Concealed or Surface Mounted)</td>
</tr>
<tr>
<td></td>
<td>8'0&quot; (2438 mm)</td>
<td>7'0&quot; (2134 mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Double Egress</td>
<td>7'0&quot; (2134 mm)</td>
<td>8'0&quot; (2438 mm)</td>
<td>Flat or Raised</td>
<td></td>
</tr>
</tbody>
</table>

Temperature rise
• @30 min = 250°F MAX where lites do not exceed 100 in²
Minimum 1-3/8” Thickness

Communicating Door Frame
Two slabs must be installed into the same communicating door frame to achieve 45 min rating

<table>
<thead>
<tr>
<th>Swing Type:</th>
<th>Maximum Dimensions Width:</th>
<th>Maximum Dimensions Length:</th>
<th>Panel Type:</th>
<th>Latching:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Swing</td>
<td>3’0” (914 mm)</td>
<td>7’0” (2134 mm)</td>
<td>Flush</td>
<td>Single Point (Mortised or Cylindrical)</td>
</tr>
<tr>
<td>Pairs</td>
<td></td>
<td></td>
<td>Not Permitted</td>
<td></td>
</tr>
<tr>
<td>Double Egress</td>
<td></td>
<td></td>
<td>Not Permitted</td>
<td></td>
</tr>
</tbody>
</table>

*All door assemblies are certified for Shallow Arch door construction

Limitations: (Review Machining Report for further detail)

- Surface Mounted Hardware
- Cylindrical Latches (Listed and Labelled)
- Mortise manual or automatic flush bolts
- Mortise Lockset (Listed and Labelled)
  - Assa Abloy Hospitality AS – Vingcard Mortise Hardware
    - “VingCard Alu” or “Trio VingAccess Alu”, Series 1050, 1060, 1070, 1080, 1090
    - 1000 Series; Models 1001, -02, -04, -07, -12, -14, -15, -57, -85 with 19.05 mm (3/4 in.) latch bolts; may include suffix letters -K, -KVC, -L or -LVC
    - “3000 DaVinci, Euro DaVinci and Presidio” battery operated units
- Listed Viewers
- Fire Exit Devices
  - Surface mounted vertical rod, RIM and concealed vertical rod exit devices
- Surface Mounted and concealed door closer (Listed and Labelled)
- Light Kit (Listed and Labelled)
  - Listed Steel Lite Kit – max. 1296 sq. in. (max dimension of 54”)
  - BASF Proprietary clip light kit – max. 2656 sq. in. (max. dimension of 83”)
  - BASF Proprietary steel channel light kit – max. 1296 sq. in. (max. dimension of 54”)
- Electric Raceway
- Surface Mounted and concealed door bottom (Listed and Labelled)
  - Max mortise 1-3/4” deep by 1” wide by full width of the door

Notes: Refer to QAI evaluation report F451-1 and the applicable test reports for test assembly configurations used for fire endurance testing.

Refer to the QAI FD002 - Fire Door Guidelines for general guidelines of fire door assemblies

Final acceptance of the product in the intended application is to be determined by the authority having jurisdiction (AHJ).

Product is to be installed in accordance with the manufacturer’s published installation instructions by qualified installing personnel.
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