## FIRE DOOR CAPABILITY CHART – 45-, 60- and 90-MINUTE POSITIVE PRESSURE



VT INDUSTRIES INC. 1000 INDUSTRIAL PARK ARCHITECTURAL WOOD DOORS P.O. BOX 490 HOLSTEIN, IA 51025 800.827.1615 WWW.VTINDUSTRIES.COM

| Fire Rating                                    | 5-Ply<br>Wood | HPDL | Door Only       | Door w/<br>Transom <sup>1</sup> | Max. Size<br>Std. Pair            | Max. Size<br>DE Pair              | Max.<br>Transom              | Maximum Lite <sup>2</sup> |            |   | Maximum Louver <sup>3</sup><br>(fusible link) |     |      | Hinges<br>&                           | Locks   | Fire Exit<br>Devices                    | Closers | Viewer<br>2 per | Flush<br>Bolts                          | Auto<br>Door                                 | Kick<br>Plates                 |
|--|---------------|------|-----------------|---------------------------------|-----------------------------------|-----------------------------------|------------------------------|---------------------------|------------|---|---|-----|------|---------------------------------------|---|---|---------|-----------------|---|--|--------------------------------|
|  | wood          |      |                 | Transom                         | 2-, 3- or 4-<br>Point<br>Latching | 2-, 3- or 4-<br>Point<br>Latching | Size                         | w                         | L          | Sq."  | w   | L   | sq." | م<br>Pivots                           |   | Devices                                 |         | door<br>max.    | BOILS                                   | Bottoms                                      | Plates                         |
| 45-, 60-, 90-<br>Minute<br>Mineral Core        | 5P11          | 1P11 | 4-0<br>x<br>9-0 | 4-0<br>x<br>9-0                 | 8-0<br>x<br>9-0                   | 8-0<br>x<br>8-0                   | 4-0<br>x<br>3-4 <sup>1</sup> | 10"                       | 33"        | 100   | 24"   | 24" | 576  | Per<br>NFPA<br>80<br>Table<br>2-4 3.1 | Cylinder,<br>Mortise,<br>(max. 5"<br>backset)<br>& Dead<br>bolt | Rim,<br>CVR,<br>Surface<br>&<br>Mortise | Surface | 1" Dia.         | Listed<br>Auto or<br>Manual<br>24" max. | Mortised<br>, Surface<br>& Semi-<br>mortised | Surface<br>Max.<br>48"<br>high |
| 60-Minute<br>Agrifiber<br>Core<br>Single Doors | 5P09          | 9P09 | 3-0<br>x<br>7-0 | N/A                             | N/A                               | N/A                               | N/A                          | 10″                       | 33″        | 100 <sup>4,5</sup>                                      | N/A   | N/A | N/A  | Per<br>NFPA<br>80<br>Table<br>2-4 3.1 | Cylinder,<br>Mortise,<br>(max. 5"<br>backset)<br>& Dead<br>bolt | Rim,<br>CVR,<br>Surface<br>&<br>Mortise | Surface | 1" Dia.         | N/A                                     | Mortised<br>, Surface<br>& Semi-<br>mortised | Surface<br>Max.<br>48"<br>high |
| 60-Minute<br>Mineral Core<br>Single Doors      | 5P45          | 1P45 | 4-0<br>x<br>8-0 | N/A                             | N/A                               | N/A                               | N/A                          | 10"                       | 33"        | 100   | 24"   | 24" | 576  | Per<br>NFPA<br>80<br>Table<br>2-4 3.1 | Cylinder,<br>Mortise,<br>(max. 5"<br>backset)<br>& Dead<br>bolt | Rim,<br>CVR,<br>Surface<br>&<br>Mortise | Surface | 1" Dia.         | N/A                                     | Mortised<br>, Surface<br>& Semi-<br>mortised | Surface<br>Max.<br>48"<br>high |
| 45-Minute<br>Agrifiber<br>Core<br>Single Doors | 5P09          | 9P09 | 4-0<br>x<br>8-0 | N/A                             | 6-0<br>x<br>7-0                   | N/A                               | N/A                          | 24"<br>24"                | 54"<br>36" | 1296 <sup>4</sup><br>, <sup>5</sup><br>864 <sup>4</sup> | N/A   | N/A | N/A  | Per<br>NFPA<br>80<br>Table<br>2-4 3.1 | Cylinder,<br>Mortise,<br>(max. 5"<br>backset)<br>& Dead<br>bolt | Rim,<br>CVR,<br>Surface<br>&<br>Mortise | Surface | 1" Dia.         | Listed<br>Auto or<br>Manual<br>24" max. | Mortised<br>, Surface<br>& Semi-<br>mortised | Surface<br>Max.<br>48"<br>high |
| 45-Minute<br>Mineral Core                      | 5P45          | 1P45 | 4-0<br>x<br>8-0 | N/A                             | 8-0<br>x<br>8-0                   | 8-0<br>x<br>8-0                   | N/A                          | 36"                       | 54"        | 1296  | 24"   | 24" | 576  | Per<br>NFPA<br>80<br>Table<br>2-4 3.1 | Cylinder,<br>Mortise,<br>(max. 5"<br>backset)<br>& Dead<br>bolt | Rim,<br>CVR,<br>Surface<br>&<br>Mortise | Surface | 1" Dia.         | Listed<br>Auto or<br>Manual<br>24" max. | Mortised<br>, Surface<br>& Semi-<br>mortised | Surface<br>Max.<br>48"<br>high |
| 45-Minute<br>SCL                               | 5P08          | 8P08 | 3-0<br>x<br>7-0 | N/A                             | N/A                               | N/A                               | N/A                          | 24"                       | 36"        | 864   | 24"   | 24" | 576  | Per<br>NFPA<br>80<br>Table<br>2-4 3.1 | Cylinder,<br>Mortise,<br>(max. 5"<br>backset)<br>& Dead<br>bolt | Rim,<br>CVR,<br>Surface<br>&<br>Mortise | Surface | 1" Dia.         | N/A                                     | Mortised<br>, Surface<br>& Semi-<br>mortised | Surface<br>Max.<br>48"<br>high |

<sup>1</sup> Requires fixed bar between door and transom.
<sup>2</sup> Larger lite sizes may be available using special glass & frame.

<sup>3</sup> Louvers are not available in 20-minute doors per NFPA 80.

<sup>4</sup> Requires metal vision panel.

<sup>5</sup> Cut out lined with intumescent.

## How to Specify Category A Installations

"Where UBC 7-2-1997 requirements for positive pressure must be met, doors shall include all requirements as part of the door construction per Category A guidelines as published by ITS/Warnock Hersey. No intumescent is allowed on the frame. Only smoke gasketing applied around the perimeter of the frame to meet the "S" rating is permissible."

## POSITIVE PRESSURE FIRE DOOR INSTALLATION INSTRUCTIONS

For Doors That Have Been Labeled in Compliance with UBC 7-2-1997

VT positive pressure fire doors are constructed to meet Intertek/Warnock Hersey Category A guidelines, allowing doors to be hung without any surfaceapplied intumescent. Our positive pressure fire doors arrive ready-to-hang, just like all other VT doors. The VT label is your assurance for one-step installation.

- 1. In order to meet the smoke requirement, a smoke seal, listed and labeled for UBC 7-2-1997 Parts 1 and 2 positive pressure installations, must be mounted around the perimeter of the frame.
- 2. Astragal sets, metal edges, or edge guards taller than 40" AFF require surface-applied intumescent furnished and installed by others. Refer to manufacturer's instructions for intumescent application. Edge guards installed below 40" AFF and 5" metal channels do not require surface-applied intumescent. Flat bar astragals (FBAs) are allowed on pairs of doors with fire ratings up to 90-minute with no additional intumescent required.
- 3. Light Kit [Where applicable] install a lite kit listed and labeled for UBC 7-2-1997 positive pressure applications to meet the appropriate fire rating. (See fire label located on door for fire rating.) Follow lite kit manufacturer's instructions for proper installation.
- 4. **Frame** Doors must be installed in fire-rated frames. Standard 3-sided steel frames (minimum 16-gauge) do not require special fire testing for positive pressure. Frames must be installed plumb, square and level.
- 5. **Hardware** Doors have been factory-prepared to receive hardware as indicated by the hardware supplier's schedule. Hardware may be required to be listed and labeled in accordance with UBC 7-2-1997 and UL 10C-1998 for use in positive pressure fire-rated wood doors if located above 40" AFF. Anything below 40" AFF can follow existing standards.
- 6. **Clearances** The clearances between the door edge and frame must be at least 1/16 inch and no greater than 1/8 inch at the head and jambs. See NFPA 80, latest edition, for clearance under bottom of doors.