

## FIRE DOOR CAPABILITY CHART - 20-MINUTE POSITIVE PRESSURE



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

Fire Rating	5-Ply Wood	HPDL	Door Only	Door w/ Transom <sup>1</sup>	Max. Size Std. Pair 3- or 4- Point Latching	Max. Size DE Pair 3- or 4- Point Latching	Max. Transom Size	Maximum Lite <sup>2</sup>			Maximum Louver <sup>3</sup> (fusible link)			Hinges & Pivots	Locks	Fire Exit Devices <sup>4</sup>	Closers	Viewer 2 per door max.	Flush Bolts	Auto Door Bottoms	Kick Plates
								W	L	Sq."	W	L	Sq."								
20-Minute Agrifiber Core In Hollow Metal Frame Single Doors	5509	909	4-0 x 9-0	4-0 x 10-0	N/A	N/A	4-0 x 3-4 <sup>1</sup>	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	N/A	Mortised , Surface & Semi- mortised	Surface Max. 48" high
	5P09	9P09	over 9-0 up to 10-0																		
20-Minute Particle Board In Hollow Metal Frame Single Doors	5502	303 404	4-0 x 9-0	4-0 x 10-0	N/A	N/A	4-0 x 3-4 <sup>1</sup>	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	N/A	Mortised , Surface & Semi- mortised	Surface Max. 48" high
	5P02	3P03 4P04	over 9-0 up to 10-0																		
20-Minute Agrifiber Core In Hollow Metal Frame Paired Doors	5P09	9P09	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0, 3-Point 10-0, 4 Point	8-0 x 9-0, 3-Point 10-0, 4 Point	4-0 x 3-4 <sup>2</sup>	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute Particle Board In Hollow Metal Frame Paired Doors	5P02	3P03 4P04	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0, 3-Point 10-0, 4 Point	8-0 x 9-0, 3- Point 10-0, 4 Point	4-0 x 3-4 <sup>2</sup>	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute Agrifiber Core In Listed Aluminum Frame	5P09	9P09	4-0 x 8-0 or 3-0 x 8-10½	N/A	6-0 x 8-10½	N/A	N/A	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute Particle Board In Listed Aluminum Frame	5P02	3P03 4P04	4-0 x 8-0 or 3-0 x 8-10½	N/A	6-0 x 8-10½	N/A	N/A	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute SCL In Hollow Metal Frame Single Doors	5508 5P08	808 8P08	4-0 x over 9-0 up to 10-0	4-0 x 10-0	N/A	N/A	4-0 x 3-4 <sup>1</sup>	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	N/A	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute SCL In Hollow Metal Frame Paired Doors	5P08	8P08	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0, 3-Point 10-0, 4 Point	8-0 x 9-0, 3-Point 10-0, 4 Point	4-0 x 3-4 <sup>2</sup>	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute SCL In Listed Aluminum Frame	5P08	8P08	4-0 x 8-0 or 3-0 x 8-10½	N/A	6-0 x 8-10½	N/A	N/A	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	N/A	Mortised , Surface & Semi- mortised	Surface Max. 48" high

20-Minute Stave In Hollow Metal Frame Single Doors	5507 5P07	707 7P07	4-0 x over 9-0 up to 10-0	4-0 x 10-0	N/A	N/A	4-0 x 3-4 <sup>1</sup>	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	N/A	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute Stave In Hollow Metal Frame Paired Doors	5P07	7P07	4-0 x 10-0	4-0 x 10-0	8-0 x 9-0, 3-Point 10-0, 4 Point	8-0 x 9-0, 3-Point 10-0, 4 Point	4-0 x 3-4 <sup>2</sup>	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute Stave In Listed Aluminum Frame	5P07	7P07	4-0 x 8-0 or 3-0 x 8-10½	N/A	6-0 x 8-10½	N/A	N/A	36"	54"	1296	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute Lead Lined In Hollow Metal Frame Single Doors	5515	1515	4-0 x 8-0	N/A	N/A	N/A	N/A	16"	16"	256	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised , Surface & Semi- mortised	Surface Max. 48" high
20-Minute Lead Lined In Hollow Metal Frame Paired Doors	5P15	1P15	4-0 x 8-0	N/A	8-0 x 8-0	N/A	N/A	16"	16"	256	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised , Surface & Semi- mortised	Surface Max. 48" 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> 5" legged metal channels required with CVR.

### 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 surface-applied 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.

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



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Fire Rating	5-Ply Wood	HPDL	Door Only	Door w/ Transom <sup>1</sup>	Max. Size Std. Pair 2-, 3- or 4-Point Latching	Max. Size DE Pair 2-, 3- or 4-Point Latching	Max. Transom Size	Maximum Lite <sup>2,5</sup>			Maximum Louver <sup>3</sup> (fusible link)			Hinges & Pivots	Locks	Fire Exit Devices	Closers	Viewer 2 per door max.	Flush Bolts	Auto Door Bottoms	Kick Plates
								W	L	Sq."	W	L	Sq."								
45-, 60-, 90-Minute Mineral Core	5P11	1P11	4-0 x 9-0	4-0 x 9-0	8-0 x 9-0	8-0 x 8-0	4-0 x 3-4'	10"	33"	100	24"	24"	576	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised, Surface & Semi-mortised	Surface Max. 48" high
60-Minute Agrifiber Core Single Doors	5P09	9P09	3-0 x 7-0	N/A	N/A	N/A	N/A	10"	33"	N/A	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	N/A	Mortised, Surface & Semi-mortised	Surface Max. 48" high
60-Minute Mineral Core Single Doors	5P45	1P45	4-0 x 8-0	N/A	N/A	N/A	N/A	10"	33"	100	24"	24"	576	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	N/A	Mortised, Surface & Semi-mortised	Surface Max. 48" high
45-Minute Agrifiber Core Single Doors	5P09	9P09	4-0 x 8-0	N/A	6-0 x 7-0	N/A	N/A	24" 24"	54" 36"	1296 <sup>4</sup> .5 864 <sup>4</sup>	N/A	N/A	N/A	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised, Surface & Semi-mortised	Surface Max. 48" high
45-Minute Mineral Core	5P45	1P45	4-0 x 8-0	N/A	8-0 x 8-0	8-0 x 8-0	N/A	36"	54"	1296	24"	24"	576	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	Listed Auto or Manual 24" max.	Mortised, Surface & Semi-mortised	Surface Max. 48" high
45-Minute SCL	5P08	8P08	3-0 x 7-0	N/A	N/A	N/A	N/A	24"	36"	864	24"	24"	576	Per NFPA 80 Table 2-4 3.1	Cylinder, Mortise, (max. 5" backset) & Dead bolt	Rim, CVR, Surface & Mortise	Surface	1" Dia.	N/A	Mortised, Surface & Semi-mortised	Surface Max. 48" 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.
- <sup>6</sup> FT1FP mouldings - 100 square inch lite maximum.

### 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."

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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.
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