

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 ¹	Max. Size Std. Pair 3- or 4-Point Latching	Max. Size DE Pair 3- or 4-Point Latching	Max. Transom Size	Maximum Lite ²			Maximum Louver ³ (fusible link)			Hinges & Pivots	Locks	Fire Exit Devices ⁴	Closers	View er 2 per door max.	Flush Bolts	Auto Door Bottoms	Kick Plates
								W	L	Sq."	W	L	Sq."								
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'	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 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 ²	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'	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 ²	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'	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 ²	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 9-0	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 9-0	N/A	8-0 x 9-0	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

¹ Requires fixed bar between door and transom.

² Larger lite sizes may be available using special glass & frame.

³ Louvers are not available in 20-minute doors per NFPA 80.

⁴ 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 ¹	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 ²			Maximum Louver ³ (fusible link)			Hinges & Pivots	Locks	Fire Exit Devices ⁷	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 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"	54"	1296 ⁴ .5 864 ⁴	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 ⁴	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 SCL Lead Lined	5P15	1P15	4-0 x 8-0	N/A	N/A	N/A	N/A	N/A	N/A	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
* 45-Minute Mineral Core Lead Lined	5P15	1P15	4-0 x 8-0	N/A	N/A	N/A	N/A	4"	25"	100	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

¹ Requires fixed bar between door and transom.
² Larger lite sizes may be available using special glass & frame.
³ Louvers are not available in 20-minute doors per NFPA 80.
⁴ Requires metal vision panel.
⁵ Cut out lined with intumescent.
⁶ VT1FP mouldings – 100 square inch lite maximum.
⁷ 5" Legged metal channels required with CVR.
 * 1/8" Max. Lead Lined (1/4" New Albany) 45 Min.

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