

Fire-Rated Door Summary of Listings - UL - Neutral Pressure

UNDERWRITERS LABORATORIES (UL) NEUTRAL PRESSURE

	Door	Maximum Size (6)	Maximum Visible Glass Size (1,2,7,8,10)	Vertical Edge Covering (17)	Hinges & Pivots	Latching Devices (18)	Closers	Viewers	Fusible Link Louvers (15)	Kick Plates	Drop Seals (16)	Transoms (5,13)	
SINGLE DOORS	90 Min. (B) Mineral Core	4'0"x10'0" (1219mm x 3048mm)	See Appendix I for Lite Approvals	Veneer banding or decorative laminate (4); full or partial length metal edge protectors	Hinges and pivots per NFPA 80	Cylindrical, mortised, unit & card locks, mortised exits, full surface vertical rods, rim exits, concealed vertical rods (1)	Surface mounted		Area limit is 576 sq. in. (3716sq. cm.) max length or width 24" (609mm): 1 or 2 individual lovers*~			For approved frame with a transom bar: max opening is 4'0"x10'0" (1219mm or 3048mm), area not to exceed 40sq. ft. (3.7sq. m) Without transom bar: rabbeted joint, max opening 3'6"x9'11-1/2" (1067mm x 3035mm) (4)	
	60 Min. (B) Mineral Core												
	45 Min. (C) Mineral Core												
	45 Min. Bonded Particle Core	4'0"x8'0" (1219mm x 2438mm)											
	20 Min. Bonded Particle Core <sup>(15)</sup>	4'0"x10'0" (1219mm x 3048mm)		Veneer banding or decorative laminate; full or partial length metal or plastic edge protectors (3); or PVC		Cylindrical, mortised, unit & card locks, mortise exits, full or top rod only surface vertical rods, rim exits, full or top rod only concealed vertical rods	Surface mounted or concealed overhead		*~ See above with Intumescent stapled to cutout				
20 Min. Structural Composite Lumber Core	Not approved		Not Available										
STANDARD PAIR DOORS	90 Min. (B) Mineral Core	See table in lower right hand corner	See Appendix I for Lite Approvals	Veneer banding, decorative laminate, metal edge/astagal, two metal edges (5,6)	Hinges and pivots per NFPA 80	Cylindrical. Mortised, mortised exits, unit and card locks, full service vertical rods, rim exits, flushbolts and extension flushbolts	Surface mounted	One or more 1" (25mm) diameter viewers 5-1/2" (140mm) from door perimeter and each other	Area limit is 576 sq. in. (3716sq. cm.) max length or width 24" (609mm): 1 or 2 individual lovers	Metal, HPDL, PVC or acrovyn up to 48" (1219mm) from the bottom of the door	Any listed full or semimortised drop seal requiring a maximum cutout size of 1" wide x 1-15/16" deep or less (16)	Max combined opening 8'0" x 9'0". Approved with transom bar only	
	60 Min. (B) Mineral Core												
	45 Min. (C) Mineral Core												
	45 Min. Bonded Particle Core	6'0"x7'0" (1828mm x 2133mm)		Veneer banding or decorative laminate; flush or rabbeted fire retardant stiles; metal edge/astagal, or two metal edges(5)		Cylindrical, mortised, unit and card locks, mortised exit, full surface vertical rods (15) flushbolts and extension flushbolts	Surface mounted		*~ See above with Intumescent stapled to cutout				Not Available
	20 Min. Bonded Particle Core <sup>(15)</sup>	8'0"x10'0" (2438mm x 3048mm)		Veneer banding; flush or rabbeted fire retardant stiles; metal edge/astagal, or two metal edges(5)		Cylindrical, mortised, unit & card locks, mortised exits, full or top rod only surface vertical rods, rim exits, concealed vertical rods (15), full or top rod only concealed vertical rods, flushbolts and extension flushbolts	Surface mounted or concealed overhead		Not approved				Not Available
20 Min. Structural Composite Lumber Core													
DOUBLE EGRESS DOORS	90 Min. (B) Mineral Core	Available as Positive Pressure Only											
	60 Min. (B) Mineral Core												
	45 Min. (C) Mineral Core	8'0"x9'0" (2438mm x 2743mm)	See Appendix I for Lite Approvals	Veneer banding or decorative laminate; metal edge/astagal (5)	Hinges and pivots per NFPA 80	Full surface vertical rods or concealed vertical rods (1)	Surface mounted					Any listed full or semimortised drop seal requiring a maximum cutout size of 1" wide x 1-15/16" deep or less (16)	
20 Min. Bonded Particle Core <sup>(15)</sup>	Veneer banding or decorative laminate; flush fire retardant stiles, metal edges/astagal or two metal edges (5)			Full or top rod only surface vertical rods or concealed vertical rods (1)		Surface mounted or concealed overhead							
20 Min. Structural Composite Lumber Core													
OTHER DOORS	20 Min. 1-3/8" (35mm) Bonded Particleboard/Structural Composite Lumber Core	3'0"x7'0" (914mm x 2133mm)	See Appendix M for Lite Approvals	Veneer banding or decorative laminate	Hinges and pivots per NFPA 80	Cylindrical locks	Surface mounted	One or more 1" (25mm) diameter viewers 5-1/2" (140mm) from door perimeter and each other	Not approved	Metal, HPDL, PVC or acrovyn; up to 48" (1219mm) from the bottom of the door	Not Approved	Not approved	
	20 Min. Dutch Door Structural Composite Lumber Core	Sgl: 4'0"x8'0" (1219mm x 2438mm)		Veneer banding or decorative laminate; full or partial length metal edge protects (2) or PVC (8)		Top and Bottom leaf: cylindrical, mortised	Surface mounted, concealed overhead, or spring hinges						
	20 Min. Acoustic	Sgl: 4'0"x9'0" (1219mm x 2743mm)		Veneer banding; partial length metal edges (4), or PVC(8)		Cylindrical mortised or card locks	Surface mounted						
	20 Min. Radiation Shielded with 1/8" (3.2mm) Lead	Sgl: 4'0"x8'0" (1219mm x 2438mm), PR: 8'0"x8'0" (2438mm x 2438mm)		Metal edge/astagal (4)		Surface mounted	Surface mounted, concealed overhead, or spring hinges						

This table pertains to fire approvals. It is the user's responsibility to evaluate the effect of various options on special requirements such as radiation shielding and acoustic performance.

- Louvers not allowed in doors used as a means of egress
- Protection channels may be mortised into the stile edge, but cannot be mortised into the face
- Special rail construction required
- Metal edges and astragals may be veneer wrapped
- Metal edges only require special construction
- Rim devices require metal edges only unless a fixed mullion is used
- For detailed information on concealed vertical rods, see Appendix P
- PVC edge protectors approved for 20-minute single swing doors
- Banding is optional on flush fire treated
- Transoms must be supplied with factory installed springbolts
- Clean Edge, HPDL and Veneer Edge approved for rail applications
- Metal vision panels may be wood veneer wrapped
- Openings must be cut by factory or licensed machiner, for minimum cut out distances, see Appendix K
- If a mullion is used between leaves, metal edges are not required
- Listed surface applied door shoes also available
- 3-1/4" AT bottom rail required for mineral core and 3-7/8" SCL bottom rail required for 20-minute doors
- Maximum combination height for doors and transoms that are rabbeted is 9'11-1/2"
- Transoms may not be available on all door types
- For non-bonded cores, additional size limitations may apply
- Contact sales for additional latching device approvals

HDPL = High Pressure Decorative Laminata

Fire doors to be installed per NFPA to 80

Maximum allowable undercut is 3/4"

All hardware and accessories used on fire-rated doors must be appropriately listed. Columns indicate association approval for each option. Combinations of options can affect approval status or available sizes.

Maximum Door Sizes for Standard Mineral Core Pairs

		Maximum Door Size*		
		45	60	90
4-Point (2 SVRs)	Without MEA	8x8'0"	8x8'0"	8x8'0"
	With ME	8x9'0"	8x9'0"	8x9'0"
4-Point (SVRs x Corner Flushbolts)	Without MEA	8x8	8x8	8x8
	With ME	8x9	8x9	8x8
3-Point (Single Point and Corner Flushbolts)	Without MEA	8x8	8x8	8x8
	With ME	8x9	8x9	8x8
3-Point (2 SVRs) or 2-point plus pin	Without MEA	8x8	8x8	8x8
	With ME	8x8	8x8	8x8

\* Max height may require 6" stile