

Feb. 27/98

## 45-MINUTE NEUTRAL PRESSURE FIRE DOOR SPECIFICATION GUIDE

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| Door Types  | GP45, CD450, and LD4500  |
| Fire Rating | 45-minute single swing including: <ul style="list-style-type: none"><li>- single door</li><li>- door and transom</li><li>- dutch door</li></ul> 45-minute pair including: <ul style="list-style-type: none"><li>- regular pair</li><li>- double egress pair</li></ul> Label and Classification by Intertek / Inchcape Testing Services (Warnock Hersey)  |
| Sizes       | Single Swings<br>Standard Single Swing: 4'0" x 10'0"<br>Single Swing Door with Transom: 4'0" x 10'0" overall<br>4'0" x 3'0" transom<br>Single Swing Door Dutch Door: 4'0" x 8'0" combined  |
| Sizes       | Standard Pairs Options with Metal Edges:<br>Active/active or active/inactive 3 or 4 point latching: 3/4" GP Firestop meeting stiles and 1" metal edge - 6'0" x 7'0"<br>Active/active or active/inactive 3 or 4 point latching: 2" GP Firestop meeting stiles and 1" metal edge - 8'0" x 8'0"<br>Rim x Rim with removeable mullion: 2" GP Firestop meeting stiles and 1" metal edge - 8'0" x 8'0"<br>Labelled Surface Mounted Top Rod only on both leaves: thermally activated pin on each leaf (door to floor/sill) 3" bottom rail, 3/4" GP Firestop meeting stiles, and 1" metal edges 8'0" x 8'0"<br>Concealed Vertical Rods on both leaves: 5" GP Firestop meeting stiles and 5" metal edges - 8'0" x 9'0"<br>Surface Mounted Vertical Rods both leaves: 3/4" GP Firestop meeting stiles and 1" metal edges - 8'0" x 9'0"   |
| Sizes       | Standard Pairs Options without Metal Edges<br>Active/active or active/inactive 3 or 4 point latching: 2" GP Firestop meeting stiles - 6'0" x 7'0"<br>Active/active or active/inactive 3 point latching with special 4" GP Firestop meeting stiles with intumescent strip in stile - 8'0" x 8'0"<br>Rim x Rim with removeable mullion and special 4" GP Firestop meeting stiles with intumescent strip in stile - 8'0" x 8'0"<br>Adams Rite Concealed Top Rod Only Device installed on both leaves, thermally activated pine on each leaf, (door to floor/sill), 3" bottom rails and special 4" GP Firestop meeting stiles with intumescent strip in stiles - 8'0" x 8'0"<br>Labelled Surface Mounted Top Rod Only Devices installed on both leaves, thermally activated pin on each leaf, (door to door) 3" hinge stiles and special 4" GP Firestop meeting stile with intumescent strip in stiles - 8'0" x 8'0" |

Labelled Surface Mounted Top Rod Only Devices installed on both leaves, thermally activated pin on each leaf, (door to floor/sill) 3" hinge stiles and 3" bottom rail, special 4" GP firestop meeting stiles with intumescent strip in stiles - 8'0" x 8'0"  
 Surface mounted Vertical Rods on both leaves with special 4" GP Firestop meeting stiles with intumescent strip in stile - 8'0" x 8'0"

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| Sizes       | <p>Double Egress Pair Options with Metal Edges<br/>         Active/Inactive - 3 or 4 point latching, 3/4" GP Firestop meeting stiles and 1" metal edges - 6'0" x 7'0"<br/>         Active/Active - Surface Mounted Vertical Rods both leaves, 3/4" GP Firestop meeting stiles and 1" metal edges - 8'0" x 8'0"<br/>         Active/Active - Concealed Vertical Rods both leaves, 5" GP Firestop meeting stiles and 5" metal edges - 8'0" x 8'0"</p>   |
| Sizes       | <p>Double Egress Pairs without Metal Edges<br/>         Active/Active Surface Mounted Vertical Rods on both leaves, special 4" GP Firestop meeting stiles with intumescent strip in stiles - 8'0" x 8'0"<br/>         Active/Active Adams Rite Concealed Top Rod only on each leaf with thermally activated pine on each leaf (door to floor/sill) 3" bottom rail, and special 4" GP Firestop meeting stiles with intumescent strip in stiles - 8'0" x 8'0"</p>   |
| Transoms    | <p>Singe Doors<br/>         4'0" x 10'0" maximum combination with 4'0" x 3'0" maximum transom size.<br/>         Requires an approved transom bar or 5" minimum GP Firestop meeting edges and a rabbett cut joint or a metal edge on the top of the door and metal edge and astragal on bottom edge of transom for straight cut joint.<br/>         Paired Doors<br/>         8'0" x 10'0" maximum total size, transom installed over a pair of doors must be separated with a mullion limiting the width of each separate transom to the width of each leaf of the door pair.</p>  |
| Dutch Doors | <p>4'0" x 8'0" Dutch Door - meeting rail of each leaf must be a minimum of 2" GP Firestop<br/>         Straight Cut - bottom edge of top leaf must be equipped with a steel astragal.<br/>         Rabbett Cut on bottom of upper leaf and top of lower leaf - no metal edges required.<br/>         Intumescent strip installed in bottom rail of top leaf - no metal edges required.<br/>         The door may be equipped with a single shelf on one or both sides (if flush, wood is acceptable, if overlapping, GP Firestop material is required).<br/>         The door may be equipped with a single shelf which passes through the door providing the shelf is constructed of GP Firestop material.</p> |
| Stiles      | <p>Minimum 1 1/16" solid lumber, maximum 7/8" after trim, minimum density 27 pcf.<br/>         Minimum 3/4" GP Firestop composition with or without maximum of 1/2" wood after trim.<br/>         Special GP stiles used in some standard pair and all double egress pairs (see sizes)<br/>         Mill option stiles unless specified, with hardwoods to match faces available.</p>   |
| Rails       | <p>Top rail - Minimum 5/8" lumber, maximum 7/8" after trim.<br/>         Bottom rail - minimum 3/4" lumber, maximum 1-7/8" after trim.<br/>         Mill option rails unless specified, hardwood rails available on request.</p>  |
| Core        | GP fire door core   |
| Adhesive    | Residential/Commercial/Architectural all Type I water proof glue  |

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| Faces         | 1/8" plywood, hardboard, medium density overlay, or decorative plastic laminate in general purpose 0.050" thickness.   |
| Vision Panels | Maximum visible glass area of single or multiple lights not to exceed 1296 sq. in. per leaf. Maximum cutout width is 36", maximum cutout height is 54". Cutouts must be 6" from edge of door to any other cutout or 5" from any hardware prep, with a minimum bottom rail of 10". Lights must be glazed with a minimum of 1/4" wire glass installed in a listed and labeled frame. (For larger lights, please call for information). |
| Louvres       | Maximum cutout width of 24" and maximum height of 24". Cutouts must be 6" from edge of door or any hardware prep and 10" from bottom of door. Doors prepared for louvres shall not be prepared for vision panel or fire exit hardware.   |
| Blocking      | May be placed at desired loctions to provide adequate screw holding and support for various hardware applications.   |
| Hinges        | Per NFPA 80, Table 2-8.1.1: listed butt, spring, pivot, pocket pivot, anchor, continuous or Soss invisible hinges - minimum 4" x 4" x 0.097 thickness.<br>Pivot, anchor and pocket hinges blocking is recommended. Soss invisible - blocking is required.  |
| Latch sets    | Positive latching required on all fire doors, roller latch not allowed.<br>Minimum latch throw is 1/2".<br>Listed cylindrical, maximum 2-1/8" diameter bore, maximum 5" backset (unless blocked).<br>Listed mortise with maximum 4-1/2" deep x 6-1/2" high pocket.   |
| Exit Devices  | Listed exit device with rim, mortise, surface vertical rod, concealed vertical rod or surface mounted top rod only devices. Through bolts are required if no blocking is specified. (For sizes, see Pg. 1 & 2) For more information, call Lynden Door, Inc.  |
| Dead bolts    | Listed dead bolt - maximum 2-1/8" diameter with a minimum of 6" from deadbolt center line to lock bolt center line. Maximum 5" backset unless blocked.   |
| Viewers       | Listed viewers to a maximum of 1" diameter.  |
| Flush bolts   | Listed mortised automatic or semi-automatic, or surface mounted manual flushbolts with a minimum latch throw of 3/4" are allowed. Extension latchbolts up to 24" with a maximum hole diameter of 1/2" are allowed.   |
| Edge guards   | For installation of pairs without GP II meeting stiles, channels of 18 or 20 gauge steel with a minimum lap of 1" and attached with minimum #8 x 3/4" screws 2" from each end and 12" on center.<br>Mortise edge guards are allowed when a minimum of 2" GP II stiles are used.<br>Surface mounted edge guards are allowed.  |
| Door bottoms  | Mortised or semi-mortised type with a maximum cutout of 1" x 1-3/4", or surface-mounted type are allowed. Cutouts require a minimum 3" GP bottom rail.   |

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| Closers           | <p>Closing devices are required on all fire doors.</p> <p>Surface mounted - mounted with through bolts or a minimum of #12 x 1-1/4" fully threaded to the head, wood screws with 5" GP Firestop top rail.</p> <p>Floor closers require a minimum of 5" GP bottom rail.</p> <p>Spring Hinges are allowed. A minimum of 1" GP Firestop stile strongly recommended.</p> <p>Concealed Closing Device LCN Models with #420 Fire Shield and 5" GP top rail are allowed.</p> |
| Wire Chase        | <p>3/8" x 3/8" square or 3/8" diameter through the door connecting the latch location to the hinge location on the opposite side of the door for low voltage wiring is allowed. A hole up to 5/8" diameter by 2" long may be provided on the hinge stile for wire splice.</p>   |
| Protection plates | <p>Plated up to 48" from the bottom edge of door may be applied with WHI approval of materials and fastenings.</p>  |
| Plant ons         | <p>Maximum width 2-1/2", maximum thickness 3/4" wood with a density of 28.7 pcf or denser, and may not be applied closer than 3-1/2" to the edge of the door, or to light or hardware cutout. Maximum area of moulding can not exceed 20% of the door face. Adhesive or mechanical fasteners with a maximum penetration of 3/4" into the door may be used.</p>  |