

## FIRE RATED FRAMES

Frame Type	Rating	Maximum throat	Maximum Opening Width	Maximum Opening Height	Maximum Overall Width	Maximum Overall Height
3 sided frame	3 hour	13"	96"	120"	n/a	n/a
Double Egress <sup>1</sup>	3 hour	12"	96"	96"	n/a	n/a
Multiple openings	90 minute	12.5"	96"	94"	152"	96"
Knockdown with compression anchors	90 minute	3.5" - 10.75"	84"	108"	n/a	n/a
Frame with transom and/or side panel <sup>2</sup>	90 minute	12.5"	96"	96"	144"	136"
Single swing frame with glazed transom <sup>3</sup>	45 minute	12.5"	48"	120"	56"	154"
Frame with glazed transom and/or side lights <sup>2 4</sup>	45 minute	12.5"	96"	120"	162" 154"	144" <sup>5</sup> 136" <sup>6</sup>
Frame with glazed transom and/or side lights <sup>7</sup>	20 minute-no hose stream	12.5"	96"	120"	158"	139"
Borrowed light <sup>8</sup>	45 minute	12.5"	n/a	n/a	144"	136"
Borrowed light <sup>9 10</sup>	20 minute-no hose stream	12.5"	n/a	n/a	158"	115"
Angled/Segmented Borrowed light <sup>11 12</sup>	45 minute	12.5"	162	144	n/a	n/a
Oversized single swing and standard pairs <sup>13</sup>	90 minute	13"	120"	144"	n/a	n/a

## FIRE RATED DOORS

<sup>1</sup> Welded Only

<sup>2</sup> Panel maximum width: 96", maximum height: 30"; or maximum width: 48", maximum height: 36"

<sup>3</sup> Transom light: maximum exposed glass: 1296 inches<sup>2</sup>; maximum width: 36", maximum height: 48"; or maximum width: 48", maximum height: 27"

<sup>4</sup> Side light: maximum exposed glass: 1296 inches<sup>2</sup>; maximum width: 33", maximum height: 54"

<sup>5</sup> Masonry opening

<sup>6</sup> Drywall opening

<sup>7</sup> 20 minute light: maximum width or height: 109 3/4" and 5268 inches<sup>2</sup> maximum exposed glass

<sup>8</sup> 45 minute light: maximum 1296 inches<sup>2</sup>; maximum width: 39", maximum height: 48" or 4608 inches<sup>2</sup> with special glazing

<sup>9</sup> 20 minute light: maximum width or height :109 3/4"; 5268 inches<sup>2</sup> maximum exposed glass

<sup>10</sup> 20 minute lights require 5/8" high stop (integral and applied)

<sup>11</sup> Segmented Borrowed Light with 1/4" wired glass; 54" maximum exposed height and width; 1296 inches<sup>2</sup> maximum exposed area

<sup>12</sup> Segmented Borrowed Light with 1/4" wired glass and Pemko FG-3000; 96" maximum exposed height; 48" maximum exposed width; 4608 inches<sup>2</sup> maximum exposed area

<sup>13</sup> Hardware limited to door requirements. See fire rated door overview.

**NOTE: These fire rating parameters consist of UL and ITS specifications. Consult CFI procedures for specifics.**

Door Type	Core	Maximum Width	Maximum Height	Minimum Thickness
Single Swing <sup>1</sup>	Steel Stiffened	48"	120"	1.6875"
Standard Pairs <sup>1 2</sup>	Steel Stiffened	96"	120"	1.6875"
Double Egress	Steel Stiffened	96"	120"	1.6875"
Single Swing	Polystyrene	36"	84"	1.6875"
Single Swing, Standard Pair, Double Egress <sup>3 4</sup>	Temperature Rise	48"	96"	1.75"
Oversize single swing and standard pairs <sup>5</sup>	Steel Stiffened	60" leaves	144"	1.75
Stainless Steel Single Opening <sup>6</sup>	Polystyrene	42"	86"	1.6875"
Stainless Steel Standard Pair <sup>6</sup>	Polystyrene	84"	86"	1.6875"

## LITE KITS FOR FIRE RATED DOORS

Rating	Maximum visible area	Maximum visible width	Maximum visible height	Glazing materials
3 hour	100 sq. in.	12"	33"	Listed and labeled Firelite, Firelite NT, Firelite Plus and Firelite IGU
90 minute	2034 sq. in.	36"	56.5"	Listed and labeled Firelite, Firelite NT, Firelite Plus and Firelite IGU
60-90 minute <sup>7</sup>	100 sq. in.	33"	33"	Listed and labeled wired glazing materials
20-60 minute	3204 sq. in.	36"	89"	Listed and labeled Firelite, Firelite NT, Firelite Plus and Firelite IGU
20-45 minute	1296 sq. in.	36"	54"	Listed and labeled wired glazing materials

<sup>1</sup> Minimum latch bolt throw on single swing is 0.5"

<sup>2</sup> Minimum latch bolt throw on standard pairs is 0.75"

<sup>3</sup> Maximum rating for double egress temperature rise is 1 ½ hour

<sup>4</sup> Temperature rise doors must be 1.75" thick

<sup>5</sup> Hardware limited to 161 or mortise lock active x ASA and flushbolt inactive; active leaves over 48" require auxiliary fire latch in top of leaf

<sup>6</sup> Rated up to 90 minute (astragal required at pair)

<sup>7</sup> Temperature rise doors allowed maximum 100 square inches in 1 ½ hour locations