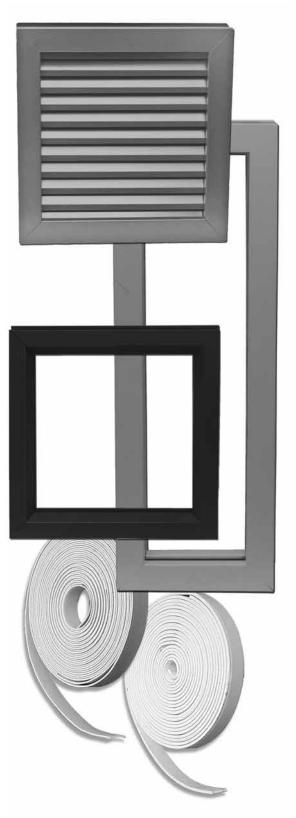
Pemko Lites & Louvers



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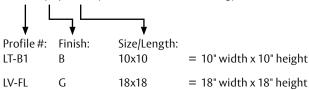
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Lite Kit Ordering Information

The following information is necessary for ordering (quantities are not included in product numbers):

QuantitySeriesFinishSize10LT-B1B3 x 33

Example: LT-B1 | B | 10X10 (Shown as LT-B1_ in catalog)



Lite Kits can be ordered using either exposed glass dimensions or door cutout dimensions. The following chart shows available stock sizes. The part numbers and dimensions corresponding to the desired frame size should be used in the order string.

Custom sizes are available within the following guidelines:

- Minimum width 2" exposed glass
- Maximum height 80" exposed glass

Please refer to the price book for more information on custom sizes.

In Stock Lite Kit Part Numbers

Exposed Glass		Cutout	
Profile#	Dimensions	Profile#	Dimensions
LT-B1	10" x 10"	CO-B1	12" x 12"
LT-B1	16" x 16"	CO-B1	18" x 18"
LT-B1	5" x 20"	CO-B1	7" x 22"
LT-B1	22" x 22"	CO-B1	24" x 24"
LT-B1	4" x 25"	CO-B1	6" x 27"
LT-B1	16" x 28"	CO-B1	18" x 30"
LT-B1	22" x 28"	CO-B1	24" x 30"
LT-B1	6" x 30"	CO-B1	8" x 32"
LT-B1	22" x 30"	CO-B1	24" x 32"
LT-B1	22" x 32"	CO-B1	24" x 34"
LT-B1	3" x 33"	CO-B1	5" x 35"
LT-B1	16" x 34"	CO-B1	18" x 36"
LT-B1	22" x 34"	CO-B1	24" x 36"
LT-B1	22" x 58"	CO-B1	24" x 60"

Low Profile - Beveled Lite Kit

The LT-B1 Lite Kit provides a wide viewing angle. For use with glazing material requiring a 3/8" pocket in 13/4" wood or metal doors. The LT-B1 installs without drilling holes through the door for quick installation. The hemmed design is a flush mounted assembly and is ideal for clean environments.

LT-B1

AVAILABLE FINISHES: **B, D, G, NP**

Standard Features

Materials:

22 gauge galvannealed steel blank side and 20 gauge galvannealed steel inner frame

Colors

Pemko lites are finished with polyester resin powder coat in the following standard colors:

B - Beige

D - Dark Bronze Duranodic

G - Gray Primer

NP - Galvannealed Steel

Fasteners:

#8 x 13/4" O.H.S.M.S.

Dimensions:

- Minimum width 2" exposed glass
- Maximum height 80" exposed glass

Other:

- Mitered and welded clean corner construction
- 37° beveled glass stops

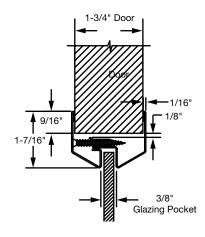
Fire Rating:

Classified in accordance with UBC code standard 7-2 for positive pressure

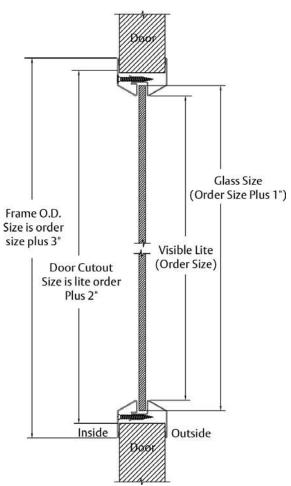


Optional Features:

- Custom colors are available
- Sample chip is required for color match
- Security fasteners are available



Specifications for ordering custom size LT-B1 Kits



Low Profile - Beveled Lite Kit (Cont.)

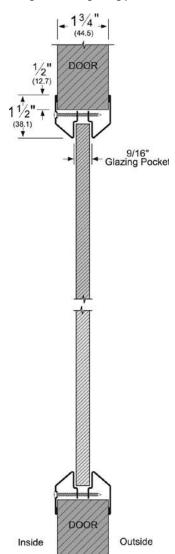
LT-B2_

AVAILABLE FINISHES: **B, D, G**

Standard Features

Materials:

20 gauge galvannealed hemless design with 9/16" glazing pocket



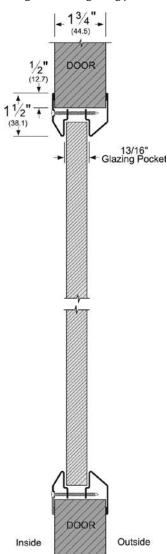
LT-B3_

AVAILABLE FINISHES: **B, D, G**

Standard Features

Materials:

20 gauge galvannealed hemless design with 13/16" glazing pocket



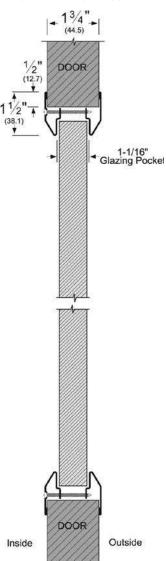
LT-B4

AVAILABLE FINISHES: **B, D, G**

Standard Features

Materials:

20 gauge galvannealed hemless design with 11/16"glazing pocket



Low Profile - 90° Lite Kit

The LT-S1 Lite Kit provides a wide viewing angle. For use with glazing material requiring a $^{3}/_{8}$ " pocket in $1^{3}/_{4}$ " wood or metal doors. The LT-S1 installs without drilling holes through the door for quick installation. The hemless design is a flush mounted assembly and is ideal for clean environments.

LT-S1

AVAILABLE FINISHES: B, D, G

Standard Features

Materials:

20 gauge galvannealed steel for width ³/₈" glazing pocket

Fasteners:

#8 x 13/4" O.H.S.M.S.

Dimensions:

- Minimum width 2" exposed glass
- Maximum height 80" exposed glass

Other:

- Mitered and welded clean corner construction
- 90° square glass stop

Fire Rating:

Classified in accordance with UBC code standard 7-2 for positive pressure



Optional Features

Materials:

304 - #4 stainless steel in 20 gauge material

Finish:

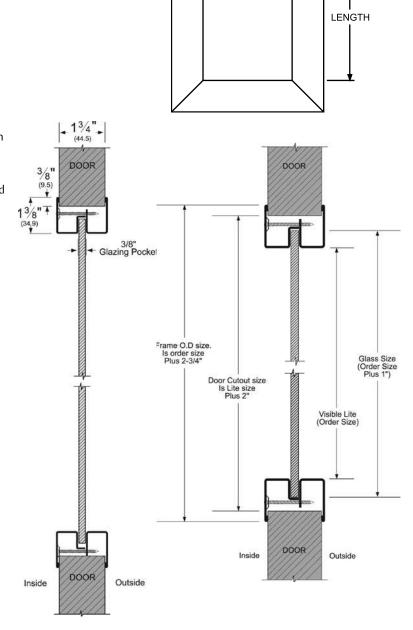
Custom powder coated finishes (sample chip must accompany order)

Fasteners:

Security fasteners

Other:

- Vision lites (supplied on both sides, standard)
- Glazing tape
- Custom glass sizes



WIDTH

 $AVAILABLE\ FINISHES\ FOR\ PRODUCTS\ SHOWN\ ON\ THIS\ PAGE\ (see\ General\ Information\ section\ for\ finish\ chart)$ $B\ (Beige\ Powder\ Coat)\ D\ (Dark\ Bronze\ Duranodic\ Powder\ Coat)\ G\ (Gray\ Primer\ Powder\ Coat)$

Low Profile - 90° Lite Kit (Cont.)

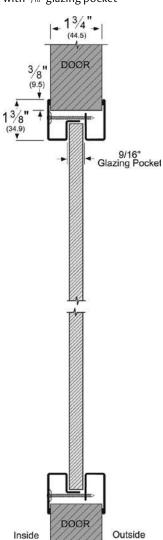
LT-S2_

AVAILABLE FINISHES: **B, D, G**

Standard Features

Materials:

20 gauge galvannealed steel with 9/16" glazing pocket



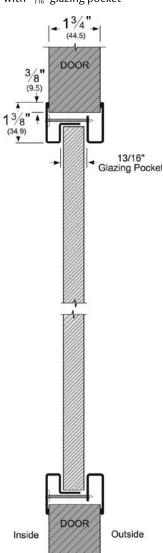
LT-S3

AVAILABLE FINISHES: **B, D, G**

Standard Features

Materials:

20 gauge galvannealed steel with 13/16" glazing pocket



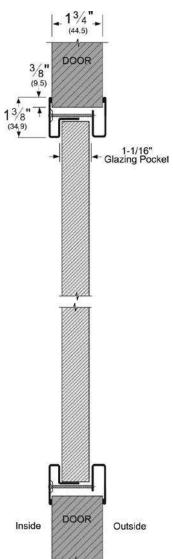
LT-S4

AVAILABLE FINISHES: **B, D, G**

Standard Features

Materials:

20 gauge galvannealed steel with 11/16" glazing pocket



Grills/Vision Lites For LT-S1 through LT-S4 Lites

These products are for the LT-S_ series only.

G-2	G-3	G-4	G-5	G-6
AVAILABLE FINISHES: B, D, G	AVAILABLE FINISHES B, D, G			
G-8	G-9	G-10	G-12	G-15
AVAILABLE FINISHES: B, D, G	AVAILABLE FINISHES: B, D, G			

Standard Features

Materials:

- Vision Lites: 20 gauge galvannealed steel
- Muntins: 18 gauge C.R.S. 1/2" x 1/2" steel tube

Door Thickness:

For 13/4" doors only

Optional Features

Finish:

Custom powder coated finishes (sample chip must accompany order)

Fasteners:

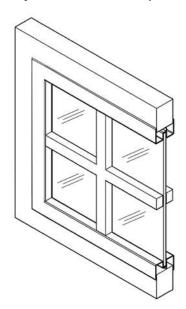
Special security screws available

Other:

Customized grille patterns

Vision Lites:

Only for use in LT-S1 to LT-S4 ("S" Series)

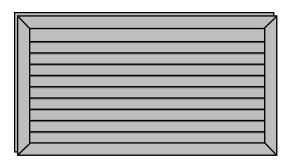


Inverted "Y" Louver

The LV-IY louver for use with 1³/₄" wood or metal doors provides 50% free air flow. The 20 gauge inverted "Y" blades add stiffness and a burr-free exposed edge. The 18 gauge galvannealed mitered frame secures the grill assembly in place giving it a clean appearance.

LV-IY_

AVAILABLE FINISHES: **B, D, G**

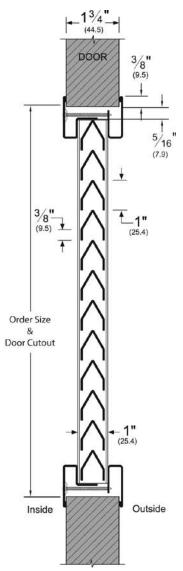


Standard Features

- 18 gauge galvannealed frame
- 20 gauge galvannealed inverted "Y" blades
- For 13/4" doors
- 50% Free air flow
- #8 15" x 13/4 O.H.S.M.S.
- Welded corner construction

Optional Features

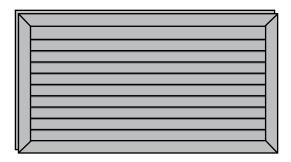
- 304 #4 stainless steel
- Louver core only
- Security screws
- Security grilles
- Insect screens
- Custom powder coated finishes (sample chip must accompany order)



Fusible Link Louver

The LV-FL louver is for use with 1^3 / $_4$ " wood or metal doors and provides 50% free air flow while fastening to one side to ensure security.

LV-FL_ AVAILABLE FINISHES: B, D, G



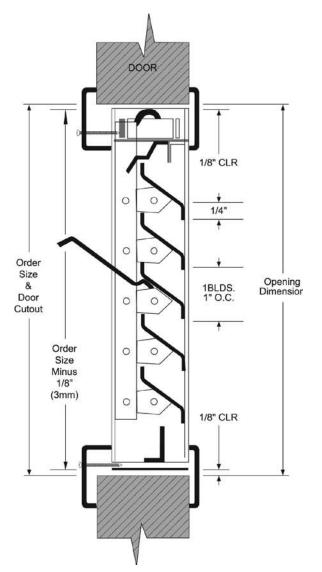
Standard Features

- 18 gauge galvannealed frame
- 16 gauge adjustable "Z" blades
- For 13/4" doors
- 50% Free air flow
- #8 15 x 1" O.H.S.M.S.
- UL listed



Optional Features

- Security screws
- Custom powder coated finishes (sample chip must accompany order)



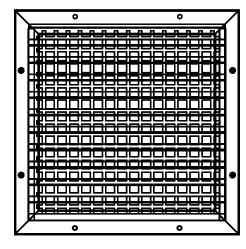
Windstorm Louver

The LV-WS Windstorm Louver is for use with $1^3/4^{"}$ exterior doors and provides 50% free air flow. The 18 gauge inverted "Y" blades add stiffness and a burr-free exposed edge. The 18 gauge galvannealed mitered frame secures the grill assembly in place giving it a clean appearance.

LV-WS_

AVAILABLE FINISHES:

B, D, G



Standard Features

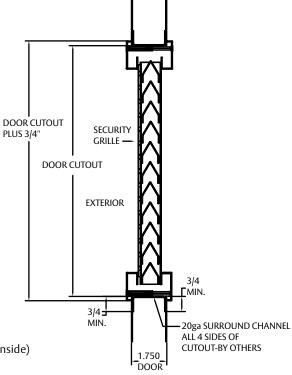
- 18 gauge galvannealed frame
- 18 gauge inverted "Y" blades
- For 1³/₄" doors
- 50% Free air flow
- Fasteners #8 x 1/2" flat head machine screws (inside)
- #8 x 15/16" threaded sleeve (outside)
- Welded corner construction

Optional Features

- Insect screens
- Custom powder coated finishes (sample chip must accompany order)

Standards

- UL Certification File #R26694. Successfully tested in accordance with ASTM E1886, E1996, TAS 201
- Large Missile Impact, 350 Ft. Lbs., +/- 70 psf and ASTM E330, TAS 202,TAS 203, +/- 70 psf
- Florida Building Code Hurricane Approval File # FL14267.1
- Design Pressure: +/- 70 psf, large missile



Fire Glazing Tape

- Verify all applications with your door and/or frame manufacturer
- FG3000S45 and FG3000S90 are specially formulated highperformance fire glazing tapes
- For exterior fire-rated applications, seal against moisture using standard industry methods

FG3000S45

AVAILABLE LENGTHS: 7', 8', 14', 16'







Color: White

FG3000S90

AVAILABLE LENGTHS: 8', 16'



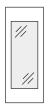




Color: White

Fire Glazing Tape in Larger Lite Applications

Single Vision Lites (Wood/Hollow Metal Door)



Maximum Height: 84" Maximum Width: 34" (Visible Glass Area): 2,856

- Maximum Total Square Inches
- hollow metal doors with metal vision frames, the use of FG3000 fire glazing tape allows for much larger vision lites • In 20- and 45-minute rated hollow metal screens,

• In 20-, 45-, 60- and 90-minute rated wood and

- the use of FG3000 fire glazing tape allows for much larger sidelites, borrowed lites and glass transoms
- New allowable visible glass areas for vision lites in 20- and 45-minute rated wood and hollow metal doors with FG3000S45 is 2,856 square inches with a maximum height of 84" and a maximum width of 34"

Multiple Vision Lites (Hollow Metal Door)



Maximum Height (Each Lite): 12" Maximum Width (Each Lite): 46" **Maximum Combined Square Inches** (All Visible Glass Areas): 2,208

For 90-minute hollow metal doors with FG3000 fire glazing tape, 12" x 46" vision lites are allowed, but the total number of lites must not exceed four (4) per door. The combined total visible glass area allowed is 2208 square inches

FG3000S45 Fire Glazing Tape in 20- and 45-Minute Hollow Metal Frame (Screen)

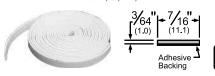
Sidelite/Borrowed Lite/Transom Lite Applications

- Verify all applications with your door and/or frame manufacturer
- For exterior fire-rated applications, a clear silicone caulk is recommended for water proofing

FG3000S45

Color: White

AVAILABLE LENGTHS: 7', 8', 14', 16'

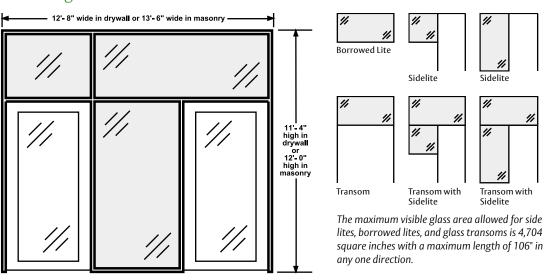


Hollow metal frame for a sidelite, borrowed lite or transom condition. **Thick glass** **

Sectional View of Application

Technical Data for 20- And 45-Minute Hollow Metal Screens Equipped with FG3000S45 (Sidelite/Borrowed Lite/Transom Lite Applications)

Lite Configurations

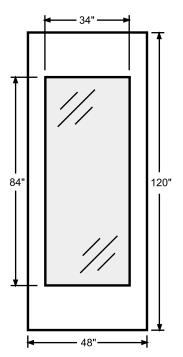


Lite Specifications	Hollow Metal Screen Specifications	Listing/Labeling Specifications
Maximum Lite Size: 106" In Any One Direction Maximum Lite Combined Square Inches: Not To Exceed 4,704	Hollow Metal Screen Specifications Maximum Dimensions (Drywall): 12'8" X 11'4" Maximum Dimensions (Masonry): 13'6" X 12'0" Metal Requirements: Frames are restricted to a minimum of 16-gauge with */s" high stops and 18-gauge glazing bead with #8 fasteners at 9" maximum centers	Door and frame must be manufactured by companies that are classified by Underwriters Laboratories Inc.® for the manufacturing and labeling of hollow metal fire doors. Warnock Hersey (I.T.S.) listings are also available through participating hollow metal manufacturers Listed Glazing Products include: Wire Glazing: Pilkington, Asahi and Central Glass
		All vision lite kits must be listed fire door glass frames, packaged with FG3000S45 or FG3000S90
		Individual door and frame manufacturers' modification procedures may vary slightly from the size listings shown

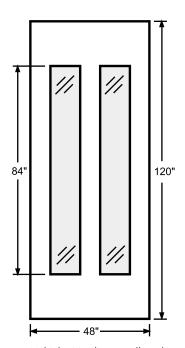
FG3000S45 Fire Glazing Tape in 20- and 45-Minute Hollow Metal Door

Metal Vision Frame Applications

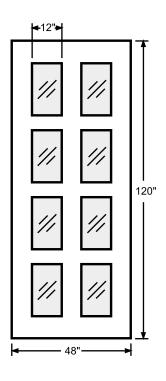
- Maximum hollow metal door size: 48" x 120" single, pairs approved
- Door and frame must be manufactured by companies that are classified by Underwriters Laboratories Inc.® for the manufacturing and labeling of hollow metal fire doors and frames. Warnock-Hersey (I.T.S.) listings are also available through participating hollow metal manufacturers
- For exterior fire rated applications, seal against moisture using standard industry methods
- Verify all applications with your door and/or frame manufacturer



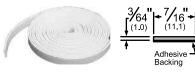
For 20 minute and 45 minute the maximum visible glass size allowed is 34" wide x 84" high or 2,856 square inches per vision lite.



Multiple vision lites are allowed in both the 20 minute and 45 minute, but the combined total visible glass area allowed is 2,856 square inches per door.

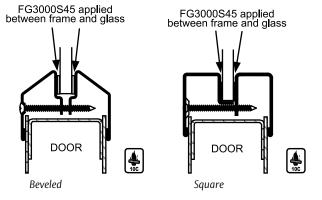


FG3000S45



Color: White

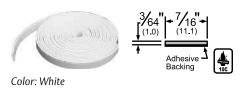
Sectional View of Applications



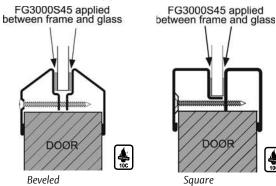
FG3000S45 Fire Glazing Tape in 20- and 45-Minute Wood Door

Metal Vision Frame Applications

FG3000S45

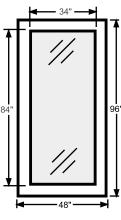


Sectional View of Applications



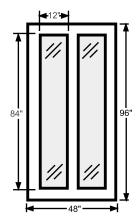
Technical Data for 20- And 45-Minute Wood Doors Equipped with FG3000S45 (Metal Vision Frame, Single and Multiple Lite Applications)

Lite Configurations





Lite Specifications



Multiple Vision Lites

Door Specification

The maximum visible glass area allowed for single lites is 34" wide x 84" high; for single and multiple lites, the total visible glass area allowed is 2,856 square inches per door.

Listing/Labeling Specifications

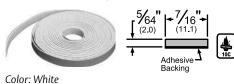
•	· •	
Maximum Dimensions (Single Lite): 34" wide x 84" high, 2,856 square inches per lite Maximum Combined Dimensions (Multiple Lites):	Maximum Dimensions: Or both 20- and 45-minute doors, the maximum wood door size is 48" x 96" single, pairs approved	 Door and frame must be manufactured by companies that are classified by Underwriters Laboratories Inc.® for the manufacturing and labeling of hollow metal fire doors. Warnock
Multiple vision lites are allowed in both the 20- and 45-minute doors, but the combined total visible glass area allowed		Hersey (I.T.S.) listings are also available through participating hollow metal manufacturers
is 2,856 square inches per door.		 Listed Glazing Products include:
		– Wire Glazing: Pilkington, Asahi and Central Glass
		 Individual door and frame manufacturers' modification procedures may vary slightly from the size listings shown

FG3000S90 Fire Glazing Tape in 90-Minute Hollow Metal Door Metal Vision Frame Applications

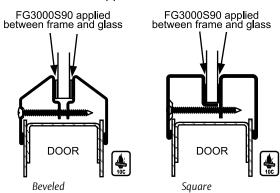
- Verify all applications with your door and/or frame manufacturer
- For exterior fire-rated applications, seal against moisture using industry standard methods

FG3000S90

AVAILABLE LENGTHS: 8', 16'

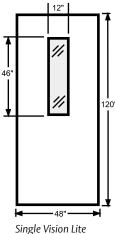


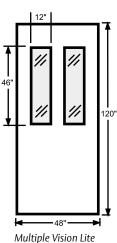
Sectional View of Applications

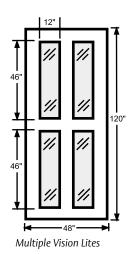


Technical Data for 90-Minute Hollow Metal Doors Equipped with FG3000S90 (Metal Vision Frame, Single And Multiple Lite Applications)

Lite Configurations







The maximum visible glass area allowed for single lites is 12" wide x 46" high or 552 square inches per vision lite; for multiple lites, the largest approved door configuration is two (2) vision lites at 12" wide x 46" high above two (2) vision lites at 12" wide x 46" high (as shown at far right). No more than four (4) lites are allowed per door, and the combined total visible glass area allowed is 2,208 square inches per door.

48" → Single Vision Lite	
Lite Specifications	

Maximum Dimensions:

For 90-minute doors, the maximum hollow metal door size is 48" x 120" single, pairs approved.

Door Specification Listing/Labeling Specifications

per lite **Maximum Combined Dimensions** (Multiple Lites):

Maximum Dimensions (Single Lite):

12" wide x 46" high, 552 square inches

Multiple vision lites are allowed in 90-minute doors, but the combined total visible glass area allowed is 2,208 square inches per door. No more than four (4) lites are allowed per door. The largest approved configuration is above two (2) vision lites at 12" wide x 46" high above two vision lites at 12" wide x 46" high.

- Door and frame must be manufactured by companies that are classified by Underwriters Laboratories Inc.® for the manufacturing and labeling of hollow metal fire doors. Warnock Hersey (I.T.S.) listings are also available through participating hollow metal manufacturers
- Listed Glazing Products include:
 - Wire Glazing: Pilkington, Asahi and Central Glass
- Individual door and frame manufacturers' modification procedures may vary slightly from the size listings shown.

FG3000S90 Fire Glazing Tape in 60- and 90-Minute Wood Doors

Metal Vision Frame Applications

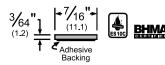
- Verify all applications with your door and/or frame manufacturer
- For exterior fire-rated applications, a clear silicone caulk is recommended for water proofing

FG3000S90

AVAILABLE LENGTHS: 8', 16'



HSS2000



HSS2000 is required to be installed with FG3000S90 for positive pressure applications only. For more information about HSS2000, please see the Adhesive Gasketing section.

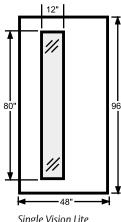
Sectional View of Applications

FG3000S90 applied between frame and glass

HSS2000 applied on backside of metal frame

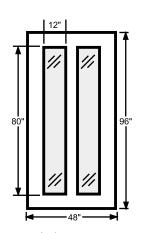
Technical Data for 60- and 90-Minute Wood Doors Equipped with FG3000S90 & HSS2000 (Metal Vision Frame, Single and Multiple Lite Applications)

Lite Configurations



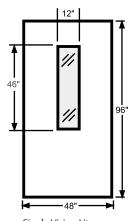
Single Vision Lite, 60-Minute Door

Lite Specifications



Multiple Vision Lites, 60-Minute Door

Door Specification



Single Vision Lite, 90-Minute Door

The maximum visible glass area allowed for 60-minute single lites is 12" wide x 80" high or 960 square inches per vision lite; 90-minute doors are allowed a maximum visible glass area of 12" wide x 46" high or 552 square inches per vision lite. Multiple lites (allowed on 60-minute doors only) have a maximum combined visible glass area of 1,920 square inches per door.

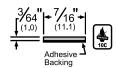
Listing/Labeling Specifications

Maximum Dimensions (Single Lite, 60-Minute): 12" wide x 80" high; 960 square inches per lite	Maximum Dimensions: For both 60- and 90-minute doors, the maximum wood door size is 48" x 96"	Door must be manufactured by companies that are classified by Underwriters Laboratories Inc.® for the manufacturing
Maximum Dimensions (Single Lite, 90-Minute): 12" wide x 46" high; 552 square inches per lite	single, pairs approved	and labeling of hollow metal fire doors. Warnock Hersey (I.T.S.) listings are also available through participating hollow
Maximum Combined Dimensions (Multiple Lites, 60-Minute): Multiple vision lites are allowed in 60-minute doors only; the combined total visible glass area allowed is 1,920 square inches per door		metal manufacturers. • Listed Glazing Products include: – Wire Glazing: Pilkington, Asahi and Central Glass • Individual door and frame manufacturers
		modification procedures may vary slightly from the size listings shown HSS2000 is required on Positive Pressure applications only

FG3000S45 Fire Glazing Tape in 20- and 45-Minute Wood Doors and Frames

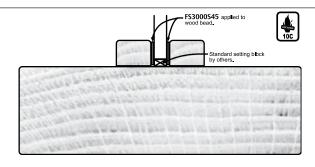
FG3000S45
AVAILABLE LENGTHS:

7', 8', 14', 16'



- Verify all applications with your door and/or frame manufacturer
- For exterior fire-rated applications, seal against moisture using standard industry methods
- Wood vision frames rated 20-minute and 45-minute
- Wood sidelite frames rated 20-minute and 45-minute
- Wood borrowed lite frames rated 20-minute and 45-minute

Technical Data for 20-Minute Wood Sidelite Frame/Wood Lite Bead/Clear Tempered Glass



Maximum Visible Glazing Dimensions (Sidelite):

32 ⁷/8" x 87 ¹³/16"

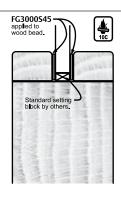
Glazing Materials (Sidelite):

- PyroEdge 20[™] by Interedge Technologies
- Fireglass 20™ by Technical Glass Products

Listing/Labeling Specifications:

- Positive Pressure Tested and Listed
- Verify availability with door and frame manufacturer

Technical Data For 20-Minute Full Lite Wood Door/Wood Lite Frame/Clear Tempered Glass



Maximum Visible Glazing Dimensions (Lite):

- (4'0" x 8'0" Door): 327/8"x 7513/16"
- (4'0" x 8'0" Door): 327/8" x 7513/16"

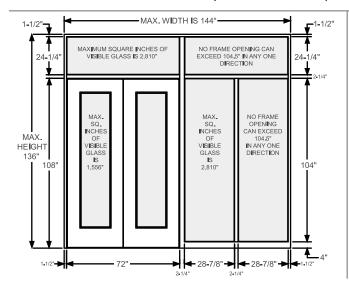
Glazing Materials (Sidelite):

- PyroEdge 20[™] by Interedge Technologies
- Fireglass 20[™] by Technical Glass Products

Listing/Labeling Specifications:

- Positive Pressure Tested and Listed
- Verify availability with door and frame manufacturer

Technical Data for: 20- and 45-Minute Full Lite Wood Door/Wood Lite Frame With Wire Glass or FireLite™, 20- and 45-Minute Wood Sidelite Frame/Borrowed Lite Frame/Transom Lite Frame with Wire Glass or FireLite™



Lite Specifications (see diagram at left):

- Positive Pressure Tested and Listed
- Large visible glazing areas
- Wire Glass and FireLite[™]
- Verify availability with door and frame manufacturer.

Contact These Manufacturers:

Navy Island, Inc.

275 Marie Ave East, West St. Paul, MN 55118 Phone: 651.451.4454, Fax: 651.451.4484

Eggers Industries - Frame Plant

1819 East River Street, Two Rivers, WI 54241 Phone: 920.793.1351, Fax: 920.793.2958