





### WIDE RANGE OF CERTIFIED FIRE-RATED PRODUCTS:

- Stainless Steel Door
- Blast Resistant Door Rolling Shutter Fully Glazed Door

- Wood Finished Steel Door
   Acoustic Door
   Hospital Door
   Ironmongeries

















### **GLAZED DOOR**

The NAFFCO Designer Series doors and frames incorporate precise European engineering to provide a sleek, modern alternative to traditional steel hollow metal frames. The Designer Series system possesses narrow / wide stile or hollow metal wide stile steel profiles, thereby exceeding traditional fire-rated frame systems in aesthetics and performance. Available, with fire ratings from 20 to 240 minutes, this system can incorporate a wide range of fire-rated glazing materials with glass sizes that surpass traditional systems.

### AREAS OF APPLICATION

- Schools and Libraries
- Hospitals
- Shopping Malls
- Government Buildings
- Office Entrances and Corporate Locations
- Airports
- Metros and Rail Terminals

### **KEY FEATURES**

- Fabricated and Assembled in UAE
- Full Vision Fire Doors
- Available in Narrow / Wide Steel Profiles and Hollow Metal Wide Stile Construction
- Modular system that can incorporate up to 240\* Minutes Fire
- Powder Coated at factory to match desired color scheme
- Optionally, Brushed Stainless Steel finish available
- Tested to UBC 7-2, UBC 7-4, ANSI/UL 9, 10B, 10C [Positive Pressure Test Standard] (or) BS 476 Part 22 Standard
- Oversize options available
- Multiple Glazing Options [Firelite, Firelite NT, Firelite Plus and Pyrostop], Contraflam
- Easy Installation similar to typical storefront systems
- Frames supplied Welded or Knock-Down, ready for
- Hardware available to fit functional requirements (Please check with NAFFCO for compatibility)

Classified and labeled by Underwriters Laboratories Inc.® and Underwriters Laboratories of Canada. File number for labeled 20/45/60/90 minute fire-rated frame assemblies is R39060. Frame tests performed in accordance with UL 9 and NFPA 257. Door tests performed in accordance with UL 10B, UL 10C, NFPA 80 and NFPA 252.

	FRAMING			
RATING	MAX. EXPOSED GLASS AREA PER PIECE	MAX. EXPOSED GLASS DIMENSION		
20 min.	6,272 in <sup>2</sup> (4.05 m <sup>2</sup> )	106-1/2 in (2.71 m)		
45 min.	4,500 in <sup>2</sup> (2.90 m <sup>2</sup> )	95-1/4 in (2.42 m)		
60 min.	5,616 in² (3.62 m²)	96 in (2.44 m)		
90 min.	2,627 in <sup>2</sup> (1.69 m <sup>2</sup> )	56-1/2 in (1.44 m)		

DOORS			
RATING	MAX. SINGLE DOOR LEAF SIZE	MAX. EXPOSED GLASS SIZE PER PIECE	
20 min.	42 X 96 in (1.07 m X 2.43m)	36 x 89 in (.91 m x 2.26 m)	
45 min.	42 X 96 in (1.07 m X 2.43m)	36 x 89 in (.91 m x 2.26 m)	
60 min.	42 X 96 in (1.07 m X 2.43m)	36 x 89 in (.91 m x 2.26 m)	
90 min.	43 × 95-7/8 in (1.09m × 2.44m)	36 x 56-1/2 (divided lite door) in (.91 m x 1.44 m)	

Note: ALL DOOR HARDWARE FOR DESIGNER SERIES DOORS WILL BE SUPPLIED BY NAFFCO.

### STANDARD HARDWARE MAY INCLUDE:

- Hinges
- Surface mounted closers
- Single mortise lock
- Panic hardware
- Handle
- Bottom Seal

### Size Selection Chart for assemblies tested to BS 476 Standards

Description	Fire Integrity in Minutes	Max. Width in mm	Max. Height in mm	Max. Area in sqm
Single Acting Swinging Doors				
Max. Door Leaf Size	180	1159	2304	-
Max. DLO Glass	180	871	2064	-
Max. Door Leaf Size	240	1008	2208	-
Max. DLO Glass	240	720	1968	-

Note: 'DLO' in the above table refers to Day Light Opening; The above mentioned DLO are indicative and is subject to glazing type.



# fireframes



### FIRE-RATED DOORS & FRAMES FOR 45/60/120 MINUTE APPLICATIONS

NAFFCO Fireframes Aluminum Series combined with Fireglass™ fire-rated glass, provide a barrier to radiant and conductive heat transfer, allowing for unlimited areas of glazing in fire separations. The high strength steel sub-frame is only 2" (51 mm) wide, yet has the strength for tall spans, while the aluminum cover system gives the ultimate in durability and flexibility with many anodizing and coating options available.

### **FEATURES**

- Fire ratings of 45/60/120 minutes
- System features extruded aluminum framing with crisp edges and narrow sightlines
- Custom aluminum face caps available to meet project needsGlass ceramic
- Easy installation
- Frames supplied "K-D" (knock-down)
- Incorporates large individual panes of Fireglass.
- Compatible with Fireframes Designer Series or Fireframes Heat Barrier Series full-glass doors from NAFFCO.
- Standard finish is clear anodized. Powder coating and other anodized finishes are available
- Door hardware available to fit functional requirements. Check with NAFFCO for compatibility
- Designed for interior use. For exterior applications, please see Fireframes Curtainwall Series
- Passes wall assembly test standard UL 263 / ASTM E119 for 60 and 120 minute ratings

### **LISTINGS**

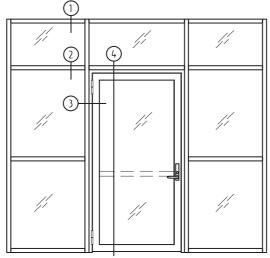
Classified and labeled by Underwriters Laboratories, Inc.® Underwriters Laboratories of Canada. Frame tests performed in accordance with UL 263 / ASTM E-119 (60-120 minutes), CAN/ULC-S101, NFPA 251, UL 9, UL 10C. Fireframes Designer Series and Fireframes Heat Barrier Series doors tested in accordance UL 10B, UL 10C, and NFPA 252.

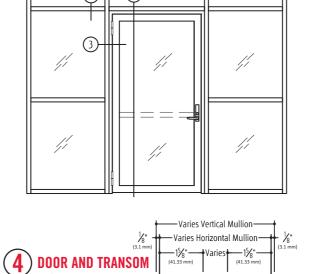
	FRAMING	
RATING	MAX. EXPOSED GLASS AREA PER PIECE	MAX. EXPOSED GLASS DIMENSION
45 min.	4,500 in <sup>2</sup> (2.90 m <sup>2</sup> )	95-1/4 in (2.42 m)
60 min.	5,616 in <sup>2</sup> (3.62 m <sup>2</sup> )	96 in (2.44 m)
90 min.	2,627 in <sup>2</sup> (1.69 m <sup>2</sup> )	56-1/2 in (1.44 m)

DOORS				
RATING	MAX. SINGLE DOOR LEAF SIZE	MAX. EXPOSED GLASS SIZE PER PIECE		
Fireframes De	esigner Series			
20 min.	42" X 96" (1.07 m X 2.44m)	36" x 89" (.91 m x 2.26 m)		
45 min.	42" X 96" (1.07 m X 2.44m)	36" x 89" (.91 m x 2.26 m)		
60 min.	42" X 96" (1.07 m X 2.44m)	36" x 89" (.91 m x 2.26 m)		
90 min.	43" x 95" - 7/8" (1.09m x 2.44m)	36" x 56" - 1/2" (divided lite door) (.91 m x 1.44 m)		
Fireframes Heat Barrier Series'''				
60 min.	48 - 7/8" x 95 - 15/16" (1.24 m x 2.44 m)	41 - 5/8" x 89 - 3/4" (1.06 m x 2.28 m)		
90 min.	48 - 7/8" x 95 - 15/16" (1.24 m x 2.44 m)	41 - 5/8" x 89 - 3/4" (1.06 m x 2.28 m)		



### **ELEVATION VIEW**



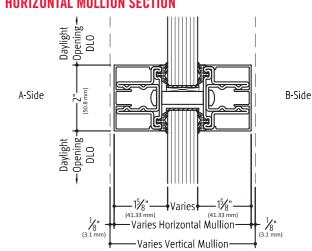


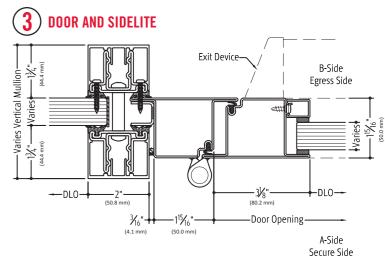
Varies

A-Side Secure Side

# <u>, Ш</u> A-Side - 15/8" — Varies — 15/8" — 41.33 mm) - Varies Horizontal Mullion — -Varies Vertical Mullion 2 HORIZONTAL MULLION SECTION Daylight Opening DLO

**HEAD MULLION SECTION** 







B-Side





### FIRE-RATED DOORS & FRAMES FOR 60/90/120 MINUTE APPLICATIONS

NAFFCO Fireframes Heat Barrier Series doors and frames provide a barrier to radiant and conductive heat transfer. Incorporating precise European engineering, the system also allows full-lite fire doors for aesthetic or security reasons. Fabricated in the UAE, Heat Barrier Series doors (with ratings up to 90 minutes) and frames (with ratings up to 2 hours) are classified and labeled with UL and ULC.

### **FEATURES**

- Narrow steel profiles
- Doors available in single leaf or double leaf design
- Modular system that can incorporate 60/90 minute full-lite temperature rise doors
- Can incorporate large individual panes of Fireglass glass
- Passes positive pressure test standards UL 10C
- Frames supplied "K-D" (or welded upon request)
- Unrestricted glazing area for use in locations where total glazing exceeds 25% of wall area
- Durable steel frames ensure low maintenance system
- Hardware available to fit functional requirements.
- Finish painted at the factory to match desired color scheme
- Easy installation similar to typical storefront systems
- Brushed stainless steel finish available (doors only)

### **LISTINGS**

Classified and labeled by Underwriters Laboratories, Inc.® Underwriters Laboratories of Canada. Frame tests performed in accordance with UL 263 / ASTM E-119 (60-120 minutes), CAN/ULC-S101, NFPA 251, UL 9, UL 10C. Fireframes Designer Series and Fireframes Heat Barrier Series doors tested in accordance UL 10B, UL 10C, and NFPA 252.

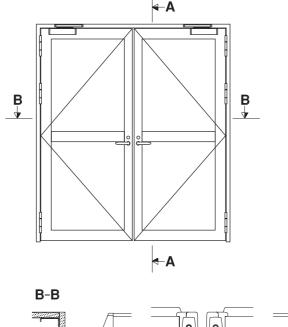
	FRAMING	
RATING	MAX. EXPOSED GLASS AREA PER PIECE	MAX. EXPOSED GLASS DIMENSION
45 min.	7,442 in² (4.80 m²)	118-1/8 in (3.00 m)
60 min.	3,724 in² (2.40 m²)	96 in (2.44 m)
90 min.	3,730 in <sup>2</sup> (2.41 m <sup>2</sup> )	111 in (2.81 m)

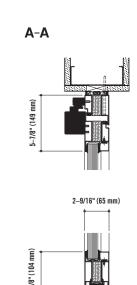
DOORS			
RATING	MAX. SINGLE DOOR LEAF SIZE	MAX. EXPOSED GLASS SIZE PER PIECE	
60 min.	42" X 96" (1.07 m X 2.44m)	36" x 89" (.91 m x 2.26 m)	
90 min.	43" × 95" - 7/8" (1.09m × 2.44m)	36" x 56" - 1/2" (divided lite door) (.91 m x 1.44 m)	

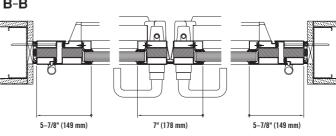
Note: Individual lite sizes cannot exceed "Max. Exposed Glass Area" shown above.



### **DOOR DETAILS**



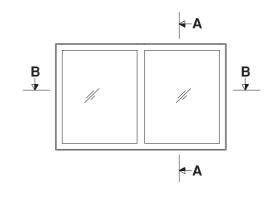


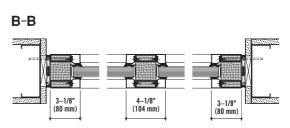


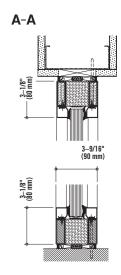
ALL DOOR HARDWARE FOR **HEAT BARRIER SERIES DOORS WILL BE** SUPPLIED BY NAFFCO.

### STANDARD HARDWARE **MAY INCLUDE:**

- Hinges
- Surface mounted closers
- Single mortise lock
- Panic hardware
- Handle
- Bottom Seals











### FIRE-RATED STEEL CURTAINWALL FOR 45/60/120 MINUTE APPLICATIONS

NAFFCO Fireframes are revolutionizing fire-rated framing. Incorporating precise European engineering, the Curtainwall Series allows for large, multi-story expanses of glass in interior and exterior applications. Fireframes Curtainwall Series frames are classified and labeled with UL and ULC.

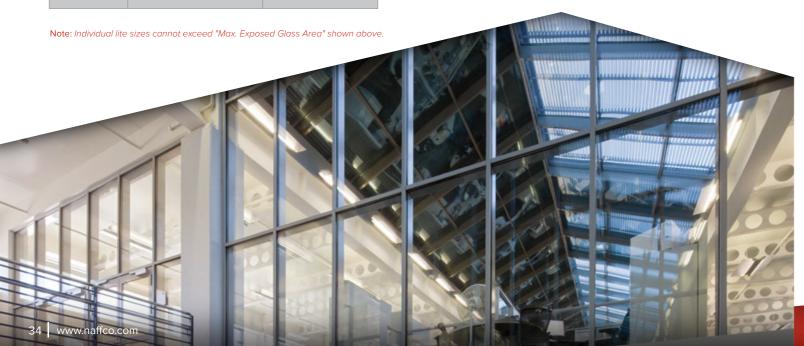
### **FEATURES**

- Fire ratings of 45, 60 and 120 minutes
- Unrestricted glazing area for use in locations where total glazing exceeds 25% of wall area (60 and 120 minutes)
- Full-lite doors available in single leaf or double leaf design (see Fireframes Designer Series or Fireframes Heat Barrier Series)
- Narrow steel and stainless steel profiles
- Air and water pressure tested and approved for exterior use
- Easy installation similar to typical pressure plate curtainwall
- Frames supplied "K.D." or welded depending on application
- Can incorporate large individual panes of Fireglass
- Durable steel and stainless steel frames ensure low maintenance system
- Finished face caps (aluminum, stainless steel, etc.) to meet project needs
- Custom aluminum face caps to meet project needs
- Finish painted at the factory to match desired color scheme
- Select profiles are available in 304 stainless steel with #4 brush finish

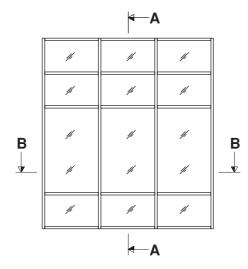
### **LISTINGS**

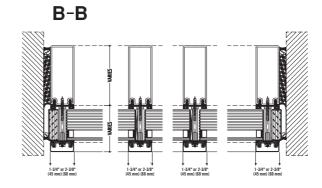
Classified and labeled by Underwriters Laboratories Inc. and Underwriters Laboratories of Canada. Frame tests performed in accordance with ASTM E-119 (60-120 minutes), CAN/ULC-S101, NFPA 251, UL 263, UL 9, UL 10C, ASTM E283,

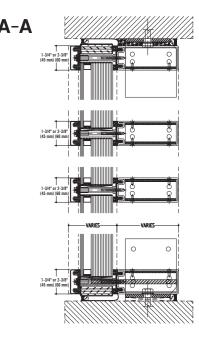
RATING	MAX. EXPOSED GLASS AREA PER PIECE	MAX. EXPOSED GLASS DIMENSION
45 min.	4,500 in <sup>2</sup> (2.90 m <sup>2</sup> )	95-1/4 in (2.42 m)
60 min.	7,442 in <sup>2</sup> (4.80 m <sup>2</sup> )	118-1/8 in (3.00 m)
120 min.	3,730 in <sup>2</sup> (2.41 m <sup>2</sup> )	111 in (2.81 m)



### **DETAIL DRAWINGS**

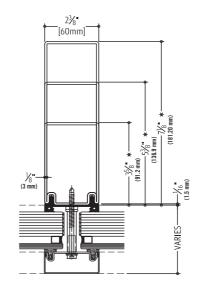


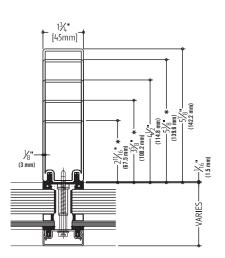




### **AVAILABLE MULLION PROFILES**

### ₩ Available in 304 stainless steel with #4 brush finish









### FIRE-RATED, SAFETY-RATED GLASS FLOORING SYSTEMS

This advanced glass floor system is impact-resistant and fire-rated for two hours. Fireframes ClearFloor can be used as a durable, non-slip walking surface, and is approved for loads up to 150 psf. The system is available for interior applications.

#### **FEATURES**

- Fire-rated for up to two hours
- · Allows glazing in spaces that previously would have required alternative opaque fire-stopping materials like concrete and corrugated
- Consists of two-hour fire-rated Fireglass; a tempered, laminated walking surface glass; and a steel framing grid
- · Brings daylight deep into building interiors, creating dramatic visual effects between different building levels
- Individual glass panel sizes are approximately 48"  $\times$  50" (1.21 m  $\times$  1.27 m)
- Protection against radiant and conductive heat transfer
- Barrier to fire and smoke
- Durable, non-slip walking surface
- Modular system enables design creativity
- Replacement of individual walking s=urface panels in case of impact breakage
- Allows for decorative color frits and sandblasted glass without affecting fire rating
- For use in interior applications

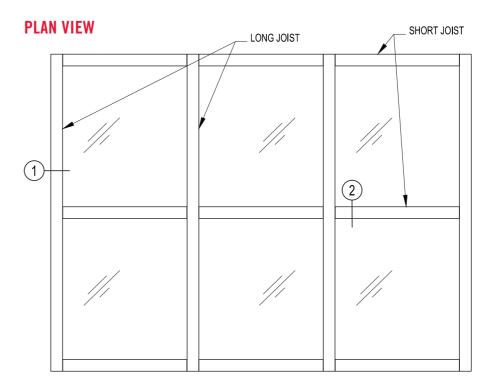
### **LISTINGS**

Classified and labeled with Underwriters Laboratories, Inc.®. Tests performed in accordance with ASTM E-119, CAN/ULC-S101, UL 263 and NFPA 251.

### **STORAGE & HANDLING**

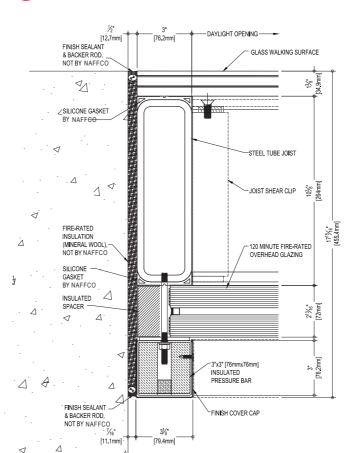
Fireglass must be handled with care during transportation, storage, inspection and installation. It should be stored in dry conditions, stocked vertically and fully supported in a manner which prevents the glass from sagging. During storage and transportation, the temperature of Fireglass should not exceed 122°F (50°C). Do not expose the "non-PVB" side of the glass to UV light. Do not remove the protective edge tape.



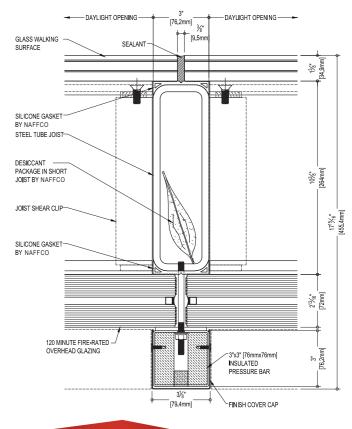


MAXIMUM INDIVIDUAL GLASS PANEL SIZE APPROXIMATELY 48" X 50" (1.21m x 1.27m)

### **CROSS SECTION AT EDGE CONDITION**



### SHORT JOIST CROSS SECTION



# **FireLite**

#### FIRE-RATED GLASS CERAMIC

NAFFCO FireLite is a 5 mm thick fire-rated glazing material. It is listed for use in non-impact safety-rated locations such as transoms and borrowed lites with fire rating requirements ranging from 20 to 90 minutes. Trusted for nearly 30 years, the FireLite family of products features ultraHD Technology for superior color and surface quality.



### **FEATURES**

- ultraHD Technology for Improved surface quality, clarity and color
- Fire-rated for up to 90 minutes with required hose stream test
- Glass ceramic
- Clear and wireless
- Fits in Fireframes Designer Series frames from NAFFCO, or standard fire-rated frames
- May be lightly sandblasted or etched on one side without affecting fire rating
- Passes positive pressure test standard UL 10C

Note: This product is not a barrier to radiant heat, as it does not meet test standards ASTM E-119 or UL 263. If your jurisdiction requires a "barrier to heat" product, please contact NAFFCO regarding Fireglass.

#### **LISTINGS**

Classified and labeled by Underwriters Laboratories, Inc.® and Underwriters Laboratories of Canada. File number for labeled fire-rated assemblies is R38488. All above tests performed in accordance with UL 9, UL 10C, CSFM 43.7, NFPA 80, NFPA 257, and CAN4 S-104. FireLite products have been tested to BS 476-20 up to 4 hours for 1.21 m x 2.43 m and .91 m x 2.43 m dimensions.

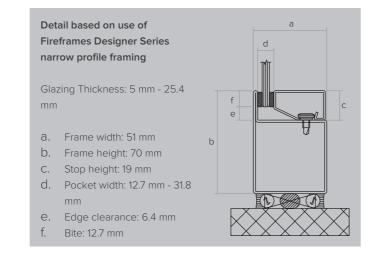
RATING	ASSEMBLY	MAX. EXPOSED AREA	MAX WIDTH OF EXPOSED GLAZIN	MAX. HEIGHT OF EXPOSED GLAZING
20 to 60 min.	OTHER THAN DOORS	2.15 m <sup>2</sup>	2,413 mm	2,413 mm
90 min	OTHER THAN DOORS	1.69 m <sup>2</sup>	1,435 mm	1,435 mm
Check with frame manufacturer for maximum tested glass sizes and required stop height.  Note: Individual lite sizes cannot exceed "Max. Exposed Area" shown above.				

### **GENERAL CHARACTERISTICS**

THICKNESS:	5 mm overall
WEIGHT:	2.5 kg/m <sup>2</sup>
APPROX. VISIBLE TRANSMISSION:	88%
APPROX. VISIBLE REFLECTION:	9%
HARDNESS (VICKER'S SCALE):	700
FIRE RATING:	20 minutes to 90 minutes
IMPACT SAFETY RATING:	None
STC RATING:	35

### **LABELING**

Each piece of Firelite shall be permanently labeled with the Firelite logo, UL logo and fire rating.



# **FireLite**<sub>NT</sub>

### FIRE-RATED, SAFETY-RATED GLASS CERAMIC MADE WITH SURFACE APPLIED FILM

NAFFCO FireLite NT is a 5 mm thick fire-rated and impact safety-rated glazing material, composed of FireLite and surface-applied firerated film. It is listed for use in doors, sidelites, transoms and borrowed lites with fire rating requirements ranging from 20 minutes to 3 hours. Trusted for over 20 years, the FireLite family of products now feature ultraHD Technology for superior color and surface quality.



### **FEATURES**

- ultraHD Technology for improved surface quality, clarity and color
- Fire-rated for up to 3 hours with required hose stream test
- Impact safety-rated-meets ANSI Z97.1 and CPSC 16 CFR1201 (Cat. I and II)
- Glass ceramic with high performance surface-applied approved fire-rated film
- · Clear and wireless
- Fits in Fireframes® Designer Series frames from NAFFCO, or standard fire-rated frames
- Withstands thermal shock
- Protects from fire and safety on both sides of glass
- FireLite side may be lightly sandblasted or etched without affecting the fire rating
- Passes positive pressure test standards UL 10C

Note: This product is not a barrier to radiant heat, as it does not meet test standards ASTM E-119 or UL 263. If your jurisdiction requires a "barrier to heat" product, please contact NAFFCO regarding Fireglass.

### **LISTINGS**

Classified and labeled by Underwriters Laboratories, Inc.® and Underwriters Laboratories of Canada. File number for labeled fire-rated assemblies is R38488. All above tests performed in accordance with UL 9, UL 10B, UL 10C, CSFM 43.7, NFPA 80, NFPA 252, NFPA 257, CAN4 S-104 AND CAN4 S-106. FireLite products have been tested to BS 476-20 up to 4 hours for 1.21 m x 2.43 m and .91 m x 2.43 m dimensions.

### **GENERAL CHARACTERISTICS**

THICKNESS:	5 mm overall
WEIGHT:	12.5 kg/m <sup>2</sup>
APPROX. VISIBLE TRANSMISSION:	88%
APPROX. VISIBLE REFLECTION:	9%
HARDNESS (VICKER'S SCALE):	700
FIRE RATING:	20 minutes to 3 hours
IMPACT SAFETY RATING:	Meets ANSI Z97.1 and CPSC 16CFR1201 (Cat. I and II)
STC RATING:	35



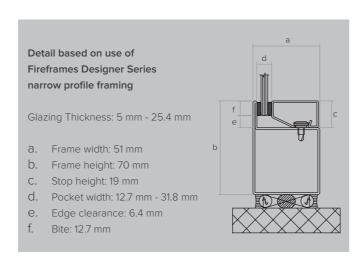
RATING	ASSEMBLY	MAX. EXPOSED AREA	MAX WIDTH OF EXPOSED GLAZIN	MAX. HEIGHT OF EXPOSED GLAZING		
20 to 60 min.	DOORS (non-temp rise) DOORS (temp rise) OTHER THAN DOORS	2.15 m <sup>2</sup> .06 m <sup>2</sup> 2.15 m <sup>2</sup>	914 mm 304 mm 2,413 mm	2,260 mm 838 mm 2,413 mm		
90 min	DOORS (non-temp rise) DOORS (temp rise) OTHER THAN DOORS	1.31 m <sup>2</sup> .06 m <sup>2</sup> 1.69 m <sup>2</sup>	914 mm 304 mm 1,435 mm	1,435 mm 838 mm 1,435 mm		
3 hour	DOORS	.06 m <sup>2</sup>	304 mm	838 mm		
Check with frame manufacturer for maximum tested glass sizes and required stop height.						

### **MAX. SHEET SIZE**

1.21 m X 2.43 m .91 m x 2.43 m (Obscure)

### **LABELING**

Each piece of Firelite NT shall be permanently labeled with the Firelite NT logo, UL logo and fire rating.



# FireLite PLUS

### FIRE-RATED, SAFETY-RATED GLASS CERAMIC

NAFFCO FireLite Plus is a nominal 8 mm thick laminated fire-rated and impact safety-rated glazing material. It is listed for use in doors, sidelites, transoms and borrowed lites with fire rating requirements ranging from 20 minutes to 3 hours. Trusted for nearly 30 years, the FireLite family of products features ultraHD® Technology for superior color and surface quality.



#### **FEATURES**

- ultraHD Technology for improved surface quality, clarity and color
- Fire-rated for up to 3 hours with required hose stream test
- Impact safety-rated-meets ANSI Z97.1 and CPSC 16 CFR1201 (Cat. I and II)
- Glass ceramic
- Clear and wireless
- Fits in Fireframes Designer Series frames from NAFFCO, or standard fire-rated frames
- Withstands thermal shock
- Protects from fire and safety on both sides of glass
- May be lightly sandblasted/etched on one side without affecting fire rating
- FireLite side may be lightly sandblasted or etched without affecting the fire rating
- Passes positive pressure test standards UL 10C

Note: This product is not a barrier to radiant heat, as it does not meet test standards ASTM E-119 or UL 263. If your jurisdiction requires a "barrier to heat" product, please contact NAFFCO regarding Fireglass.

### **LISTINGS**

Classified and labeled by Underwriters Laboratories, Inc.® and Underwriters Laboratories of Canada. File number for labeled fire-rated assemblies is R38488. All above tests have been performed in accordance with UL 9, UL 10B, UL 10C, CSFM 43.7, NFPA 80, NFPA 252, NFPA 257, CAN4 S-104, and CAN4 S-106. FireLite products have been tested to BS 476-20 up to 4 hours for 1.21 m x 2.43 m and .91 m x 2.43 m dimensions.

### **GENERAL CHARACTERISTICS**

THICKNESS:	Nominal 8 mm overall
WEIGHT:	19.53 kg / m <sup>2</sup>
APPROX. VISIBLE TRANSMISSION:	85%
APPROX. VISIBLE REFLECTION:	9%
HARDNESS (VICKER'S SCALE):	700
FIRE RATING:	20 minutes to 3 hours
IMPACT SAFETY RATING:	Meets ANSI Z97.1 and CPSC 16CFR1201 (Cat. I and II)
STC RATING:	38



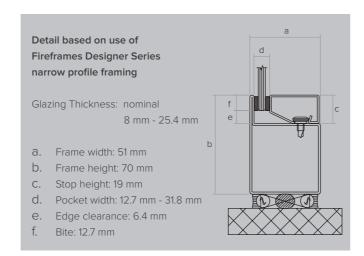
RATING	ASSEMBLY	MAX. EXPOSED AREA	MAX WIDTH OF EXPOSED GLAZIN	MAX. HEIGHT OF EXPOSED GLAZING		
20 to 60 min.	DOORS (non-temp rise) DOORS (temp rise) OTHER THAN DOORS	2.07 m <sup>2</sup> .06 m <sup>2</sup> 2.15 m <sup>2</sup>	914 mm 304 mm 2,413 mm	2,260 mm 838 mm 2,413 mm		
90 min	DOORS (non-temp rise) DOORS (temp rise) OTHER THAN DOORS	1.31 m <sup>2</sup> .06 m <sup>2</sup> 1.69 m <sup>2</sup>	914 mm 304 mm 1,435 mm	1,435 mm 838 mm 1,435 mm		
3 hour	DOORS	.06 m <sup>2</sup>	304 mm	838 mm		
Check with frame manufacturer for maximum tested glass sizes and required stop height.  Note: Individual lite sizes cannot exceed "Max. Exposed Area" shown above.						

### **MAX. SHEET SIZE**

1.21 m X 2.43 m

### **LABELING**

Each piece of FireLite Plus shall be permanently labeled with the FireLite Plus logo, UL logo and fire rating.



## **CERTIFICATES**









42 www.naffco.com 43

# **CERTIFICATES**









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