TECHNICAL DATA

FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

INDEX

FOR

GLASS AND GLAZING MATERIALS

DETAIL DRAWING

TECHNICAL DATA

FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
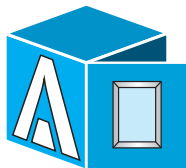e–mail: door@anemostat.com • website: www.anemostat.com

SAFE-Wire®
1/4" (6mm)

WITH SURFACE APPLIED FILM
(Fire & Impact/Safety Rated)
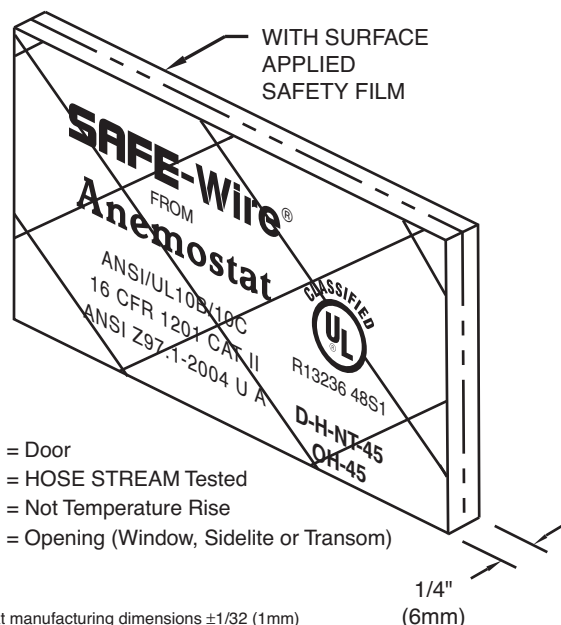
FIRE RATED BY
UNDERWRITERS' LABORATORIES

Sound **T**ransmission **C**lass

CATEGORY II IMPACT/SAFETY RATED
ANSI Z97.1 2004 U A

DETAIL DRAWING

FIRE & SAFETY RATED

MEETS CURRENT IBC CODE REQUIREMENTS

WITH SURFACE APPLIED SAFETY FILM

SAFE-Wire® FROM Anemostat

ANSI/UL10B/10C
16 CFR 1201 CAT II
ANSI Z97.1-2004 U A

CLASSIFIED UL
R13236 48S1
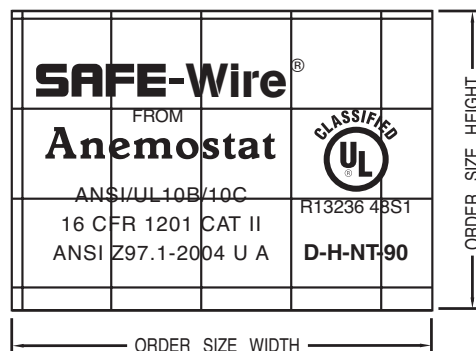
D-H-NT-45
OH-45

D = Door
H = HOSE STREAM Tested
NT = Not Temperature Rise
OH = Opening (Window, Sidelite or Transom)

Anemostat manufacturing dimensions ±1/32 (1mm)
Actual dimensions are nominal and may vary
based on component manufacturers tolerances.

1/4" (6mm)

3/4" (19mm) Diamond Pattern

SAFE-Wire® FROM Anemostat

ANSI/UL10B/10C
16 CFR 1201 CAT II
ANSI Z97.1-2004 U A

CLASSIFIED UL
R13236 48S1

D-H-NT-90

ORDER SIZE HEIGHT
ORDER SIZE WIDTH
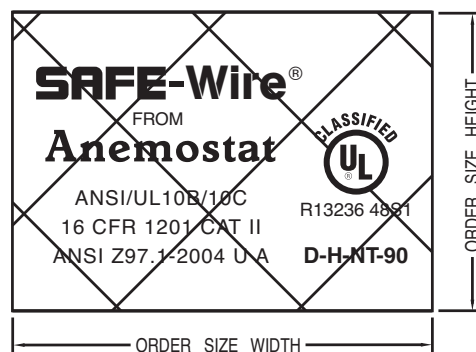
1/2" (13mm) Square (Georgian) Pattern

SAFE-Wire® FROM Anemostat

ANSI/UL10B/10C
16 CFR 1201 CAT II
ANSI Z97.1-2004 U A

CLASSIFIED UL
R13236 48S1

D-H-NT-90

ORDER SIZE HEIGHT
ORDER SIZE WIDTH

STANDARD PRODUCT FEATURES

- **MATERIAL:** 1/4" (6mm) Polished wire glass with surface applied safety film.
- **FINISH:** Clear with 3/4" x 3/4" (19mm x 19mm) diamond, or 1/2" x 1/2" (13mm x 13mm) square wire pattern.
- **INSTALLATION:** SAFE-Wire shall be glazed into the appropriate fire rated framing with GT-18, 1/8" (3.2mm) fire rated glazing tape (supplied loose), to both sides of glass.
- **CLASSIFICATION MARKINGS:** Each piece of cut to size 1/4" (6mm) SAFE-Wire glass is permanently etched with the listing mark of U.L., in accordance with standards set forth by N.F.P.A - 80 revised.
- **USES:** SAFE-Wire glass is a fire and impact/safety rated glazing material, composed of polished wire glass and a special clear surface applied safety film. It carries a listing for use in INTERIOR Doors, Sidelites, Transoms and Borrowed Lites with fire ratings from 20 minutes to 90 minutes.
- **NOTE:** Film is applied to one side of SAFE-Wire only. However, Fire Rating is not dependent on which way film faces in interior applications.
- Occasional process marks or small occlusions may occur due to the filming method employed in manufacturing this product. However, this does not affect the fire/safety performance or general vision area of the glazing and should not be a cause for rejection. Please refer to our Quality Specifications & Inspection Guidelines for Filmed Glazing for additional information (page 3).
- **IMPORTANT:** Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

OPTIONAL FEATURES

- **SIZES:** Customized glass sizes to fit most any shape vision frame.

FIRE RATINGS (w/ U.L. classification marking) Positive Pressure

- **20 MINUTE:** Approved listing at 2994 sq.in. (1.932 m²) visible lite.
- **45 MINUTE:** Approved listing at 1296 sq.in. (0.836 m²) visible lite.
- **60/90 MINUTE:** Approved listing at 100 sq.in. (0.065 m²) visible lite.
- **NOTE:** Labeled sizes over 1296 sq.in. (0.836 m²) are available providing installation application is appropriately fire rated.

IMPACT / SAFETY RATINGS

- Meets ANSI Z97.1-2004 U A and CPSC 16CFR-1201.
  - Category I - up to 9 sq. ft. (0.837 m²)
  - Category II - over 9 sq. ft. (0.837 m²)

SOUND RATINGS with LoPro-STC

- **LoPro-STC with SAFE-Wire:*** STC - 38
- **TESTED SIZE:** 24" X 36" (610mm x 914mm) CUTOUT / ASSEMBLY
- **TESTED IN ACCORDANCE WITH:** ASTM E90-09 and ASTM E2235-04. STC measurements determined in accordance with ASTM E413-04. Testing conducted at Western Electro - Acoustic Laboratory, Santa Clarita, CA.
- ***** Fire Rated

Job Name & Location	Submitted by

For Most Current Info, Consult Factory or check our website, www.anemostat.com

MARCH 2012
GLASS AND GLAZING MATERIALS PAGE 1

TECHNICAL DATA

FROM

Anemostat
D o o r   P r o d u c t s

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

WIRE GLASS
1/4" (6mm)

NOT SAFETY RATED

FIRE RATINGS

UL
UNDERWRITERS' LABORATORIES

INTERTEK
WARNOCK HERSEY

DETAIL DRAWING

NON
IMPACT / SAFETY RATED PRODUCT

(Does Not Meet CPSC Cat I, Cat II or ANSI-Z97.1-2004 Impact Standards required by Current IBC Codes)

Wire Glass
FROM
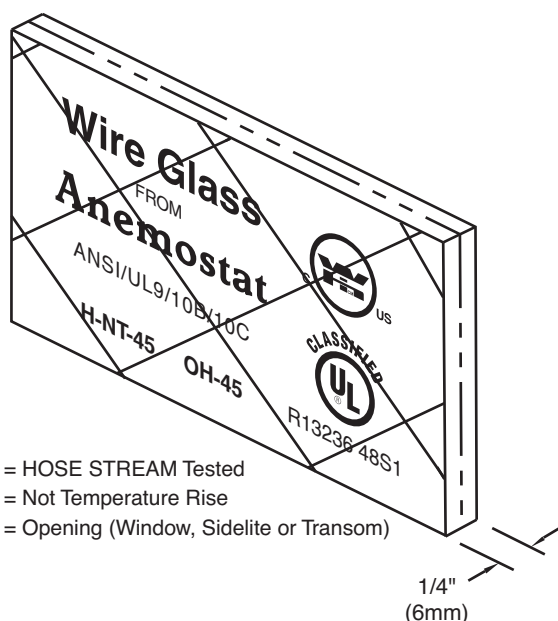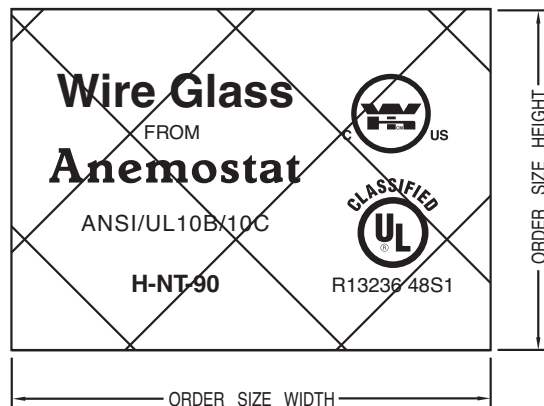Anemostat
ANSI/UL9/10B/10C
H-NT-45   OH-45
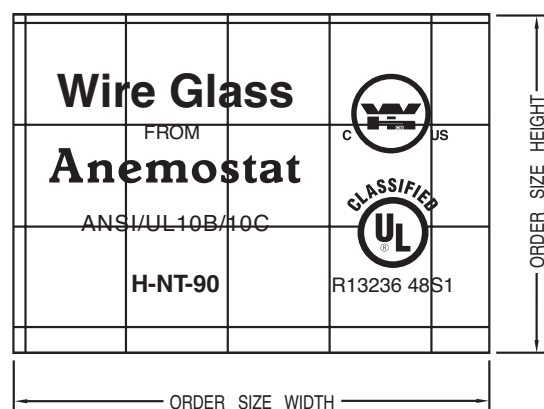R13236 48S1

H = HOSE STREAM Tested
NT = Not Temperature Rise
OH = Opening (Window, Sidelite or Transom)

1/4" (6mm)

Anemostat manufacturing dimensions ±1/32 (1mm)
Actual dimensions are nominal and may vary
based on component manufacturers tolerances.

Wire Glass
FROM
Anemostat
ANSI/UL10B/10C
H-NT-90   R13236 48S1

3/4" (19mm) Diamond Pattern

ORDER SIZE HEIGHT
ORDER SIZE WIDTH

Wire Glass
FROM
Anemostat
ANSI/UL10B/10C
H-NT-90   R13236 48S1

1/2" (13mm) Square Pattern

ORDER SIZE HEIGHT
ORDER SIZE WIDTH

STANDARD PRODUCT FEATURES

- **MATERIAL:** 1/4" (6mm) Polished wire glass.
- **FINISH:** Clear with 3/4" x 3/4" (19mm x 19mm) diamond wire pattern or Clear with 1/2" x 1/2" (13mm x 13mm) square wire pattern.
- **INSTALLATION:** Wire Glass shall be glazed into the appropriate fire rated framing with GT-18, 1/8" (3.2mm) fire rated glazing tape (supplied loose) applied to both sides of the glass.
- **CLASSIFICATION MARKINGS:** Each piece of cut to size 1/4" (6mm) wire glass is permanently etched with the listing mark of U.L. and W.H.I., in accordance with standards set forth by N.F.P.A - 80 revised.
- **USES:** In applications requiring a fire rating in a transom, wall or borrowed lite, and no safety rating is required.

OPTIONAL FEATURES

- **SIZES:** Customized glass sizes to fit most any shape.

FIRE RATINGS (w/ U.L. & W.H.I. classification markings) Positive Pressure

- **20 MINUTE:** Approved listing at 2994 sq.in. (1.932 m^2) visible lite
- **45 MINUTE:** Approved listing at 1296 sq.in. (0.836 m^2) visible lite
- **60/90 MINUTE:** Approved listing at 100 sq.in. (0.065 m^2) visible lite

- **PLEASE NOTE:** On visible lite sizes larger than 1296 sq. in. (0.836 m^2) on 20/45 min. and 100 sq. in. (0.065 m^2) on 60/90 min., please consult with your Manufacturer's procedures, for their maximum glass size tested.

- *IMPORTANT:* Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

Job Name & Location	Submitted by

For Most Current Info, Consult Factory or check our website, w w w . a n e m o s t a t . c o m

MARCH 2012
GLASS AND GLAZING MATERIALS PAGE 2

TECHNICAL DATA

FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
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QUALITY SPECIFICATIONS &
INSPECTION STANDARDS
FOR

SAFE-Wire®
and
FireLite® NT

FILMED GLAZING

DETAIL DRAWING

Applied film on flat glass surfaces is not expected to have the same level of visual quality as standard float glass. Inspect glass from a distance of 10ft (3.1m) at a 90 degree viewing angle to the specimen. Inspection should be carried out in natural daylight and not in direct sunlight. The normal vision area does not include the 2" (51mm) wide band around the perimeter of the unit.

If a pinhole is readily apparent, the following criteria apply:

- Pinholes larger than 1/16" (1.6mm) in diameter are not allowed in 80 percent of the glass area.
- Pinholes larger than 1/8" (3.2mm) are not allowed in the outer 20 percent of the glass area.
- No more than two readily apparent blemishes are allowed in a 3" (76mm) diameter circle and no more than five readily apparent blemishes are allowed in a 12" (305mm) diameter circle.

If a scratch is readily apparent, the following criteria apply:

- Scratches up to 2" (51mm) are allowed in 80 percent of the central glass area.
- Scratches up to 3" (76mm) are allowed in the outer area.
- Concentrated scratches or abraded areas are not allowed.

When inspecting glass, the surface of the glass should be divided into three zones. The edge is the area from the edge to 11/16" (17mm) in. The Main zone is an oval in the center of the glass comprising 80% of the glass surface. The Rim zone is what is left.

EDGE
11/16"
(17mm)

RIM ZONE

MAIN ZONE
(80% of surface area)
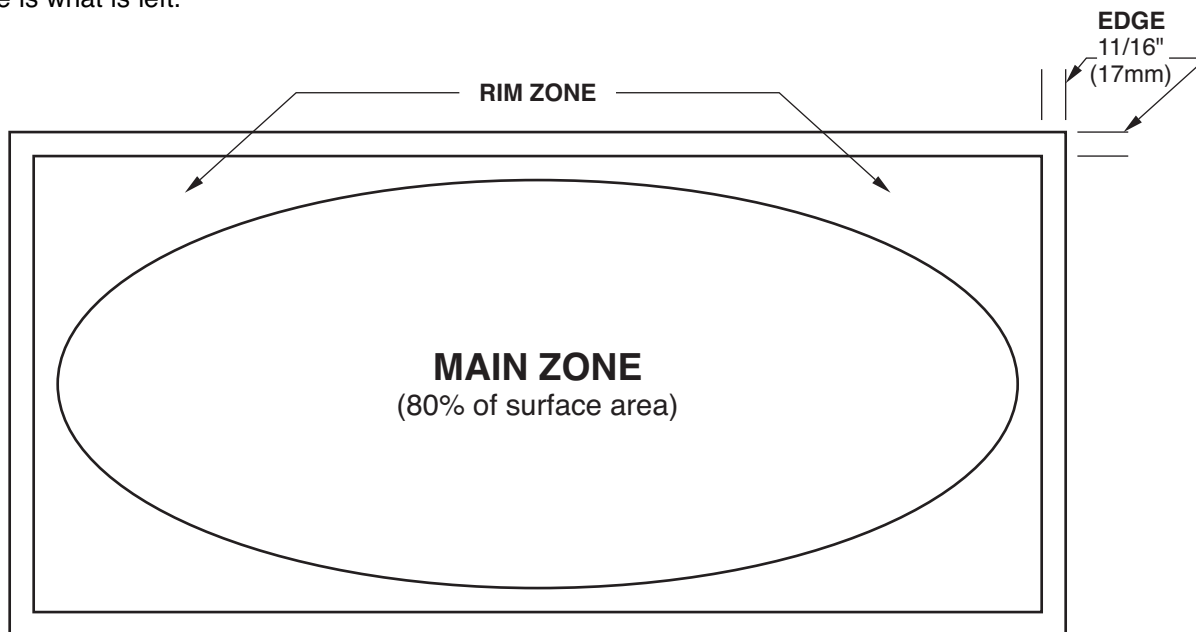
When inspecting a piece of glass you should be standing 10 feet (3.1m) from the surface of the glass and at a 90 degree angle perpendicular to the glass surface. (Inspection Guidelines Similar to ASTM Standard C 1376)

Job Name & Location	Submitted by
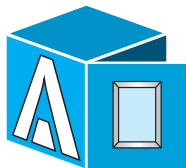
Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e-mail: door@anemostat.com • website: www.anemostat.com

CARE AND CLEANING
INSTRUCTIONS
FOR

**FireLite®
PRODUCTS**
and
SAFE-Wire®

Maintenance and Cleaning Instructions for FireLite® Products

To maintain aesthetics, it is important to clean the glass during and after construction. For routine cleaning, use a soft, clean, grit-free cloth and a mild soap, detergent, or non abrasive window cleaning solution.

Rinse immediately with clean water and remove any excess water from the glass surface with a squeegee. Do not allow any metal or hard parts of the cleaning equipment to contact the glass surface.

Care and Cleaning Instructions for
FireLite® NT and SAFE-Wire® (surface applied film) Products

1. Care must be taken not to scratch the film.
2. Do not use bristle brushes or abrasive cleaning materials.
3. Cleaning methods used should be similar to those used on Plexiglas.
4. A soft cloth or clean synthetic sponge is recommended for washing. Do not use the same towel or sponge for wiping sills or frames.
5. A squeegee of 70-85 durometer hardness is recommended for removal of wash water and dirt from the film.
6. Do not apply heavy pressure in any cleaning operation.
7. Do not leave the film wet.
8. Make sure you use a different sponge, cleaning cloth, and water bucket for the outside and the inside of the windows.
9. A little extra detergent for cleaning the film side will make using the squeegee easier.

Failure to comply with these care and cleaning guidelines may result in loss of warranty
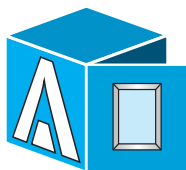
TECHNICAL DATA
FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

FREQUENTLY
ASKED
QUESTIONS

FireLite®
PRODUCTS

What is it?

FireLite is a fire-rated glazing material which is different from ordinary window glass in that it is classified as a true ceramic. Because ceramic is resistant to high temperatures, FireLite is ideal for use in fire-rated doors and windows. Since FireLite looks and feels like ordinary glass, we often refer to it as "glass" or "glazing" to avoid confusion.

Why ceramic?

Ceramic is particularly well-suited for fire-rated applications because, unlike ordinary window glass, ceramic has a very low coefficient of thermal expansion. Just like steel and almost any other material used in building construction today, ordinary glass expands dramatically when subjected to the high temperatures inherent in a structural fire. This high level of expansion causes ordinary glass to break at a relatively low temperature of approximately 250° F (121° C). As a point of comparison, FireLite maintains its stability even in extreme conditions where temperatures may exceed 1800° F (982° C).

This low coefficient of expansion is also required for the glass to withstand thermal shock. Thermal shock occurs when hot glass is subjected to the rapid cooling effects of a sprinkler system or fire hose. The "shock" of the rapid change of expansion causes the glass to shatter, sometimes explosively. Because of the pervasive use of automatic sprinklers for fire suppression, and because fire fighters use fire hoses to attack a fire, the ability to withstand thermal shock is critical for fire-rated glazing. Stating that a fire-rated glazing product can withstand thermal shock is to say that it passed what is known as the hose stream test. As a point of clarification, fire-rated glass is required by US building codes and test standards to pass the hose stream test for use in all applications which require a fire rating of 45 minutes or higher. Beware of products that state that they can "withstand thermal shock from sprinklers" but then say that they "have not passed the hose stream test." There is no meaningful middle ground: Either a product does pass the hose stream test or it does not. Remember, if a product does not pass the hose stream test, then it may shatter or explode when hit by water, thus leaving no protection against the transfer of fire and deadly smoke. (Note: in Canada, all fire-rated glazing must pass the hose stream test.)

Does it have a tint?

A common question concerning FireLite is whether or not the product has any perceptible color. Due to the fact that ceramic is comprised of different basic ingredients than those used in the fabrication of ordinary window glass, FireLite appears to have a slight auburn tint, versus the blue or green hue commonly associated with window glass. In the case of window glass, the blue or green color tends to disappear once the glass is installed in a frame and light no longer refracts directly through the edge of the glass lite. This phenomenon is also true of FireLite, which tends to possess a neutral color once installed in a door or window frame.

What's the difference between Premium and Standard Grade FireLite?

"Premium Grade" FireLite is polished on both surfaces so that it is very nearly distortion free. "Standard Grade" FireLite is not polished, and therefore does have some slight, visible distortion. For applications where such distortion could be a concern, we strongly recommend obtaining samples prior to specification.

In 2010, FireLite® improved the color and clarity of the "Standard Grade" product, to the point that it is nearly indistinguishable from the "Premium Grade".

What's the difference between FireLite NT and FireLite Plus?

FireLite NT and FireLite Plus are the members of the FireLite family that meet all safety impact requirements (ANSI z97.1 2004 U A, CPSC 16 CFR 1201 Categories I and II) required for glazing applications in or near a door or near the floor. (Learn more about these safety impact test standards here.)

FireLite NT meets all safety impact requirement via a film applied to one side of the glass. FireLite NT is available in both Premium and Standard Grades.

FireLite Plus meets all safety impact requirements by laminating two pieces of FireLite together. FireLite Plus can be made from Premium or Standard Grade FireLite in its make-up. Also note that the laminate for FireLite Plus is a very special, fire-rated laminate. (Typical laminates are oil-based and are highly flammable.)

FireLite NT can be a more economical choice than FireLite Plus when addressing the need for fire-rated and safety impact-rated glazing. However, for high traffic areas or for areas prone to abuse (such as many applications in K-12 schools) FireLite NT (or any filmed product) may not be the best choice due to the exposed film that, while not obviously visible or soft, can be damaged by a errantly pushed cart or "determined" teenager. For such applications, the extra up-front cost of FireLite Plus may be easily justified compared to the cost of maintaining a filmed product over an extended period of time. Indeed, FireLite Plus is a much more common choice than FireLite NT for our customers when addressing glazing applications in K-12 schools.

Note that FireLite cannot be tempered. Tempering is a process of applying heat (typically) to glass, taking advantage of the coefficient of expansion, to strengthen the glass. As discussed above, FireLite's physical properties don't change when heated, hence the need for different methods than tempering for strengthening the glass to meet safety impact standards.

May FireLite be cut?

FireLite can be cut much like ordinary glass. A self-lubricating, sharp cutter (Toyo brand) is recommended. FireLite NT should be scored on the non-film side. The film may then be cut with a razor blade. FireLite Plus must be scored on both sides, the laminate then heated by a torch and cut with a razor blade.

Care should be taken not to cut off the permanently etched FireLite NT or FireLite Plus logo with fire-rating and listing information as this logo certifies to the Authority Having Jurisdiction that this product is acceptable.

May FireLite be sand-blasted or etched?

FireLite may be sand-blasted or lightly etched without voiding the fire-rating or warranty.

What is Obscure FireLite?

Obscure FireLite is FireLite that has been treated at the factory for an obscure finish. The finish resembles that of a shower door.

Does FireLite get thicker according to fire-rating?

No, FireLite does not get thicker as fire-ratings increase. It is always either 3/16" (5mm) thick (FireLite, FireLite NT) or 5/16" (8mm) thick (FireLite Plus). This makes FireLite an excellent choice for replacement of wired glass (typically 1⁄4" thick) since the nearly identical thicknesses will allow the existing fire-rated frames to be retained.

Other Questions?

Check our Technical Data Sheets, e-mail: door@anemostat.com or call 310-835-7500. We're here to help!

TECHNICAL DATA

FROM

Anemostat

Door Products

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FireLite® Plus
5/16" (8mm) CLEAR
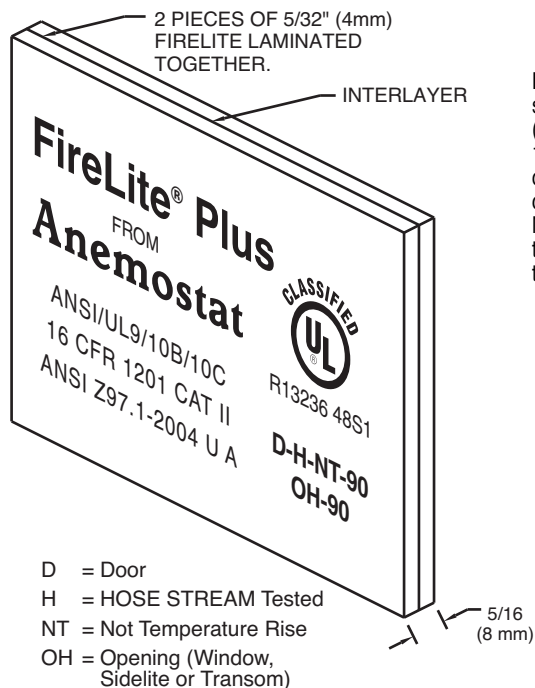### (Fire & Impact/Safety Rated)

FIRE RATED BY

UL UNDERWRITERS' LABORATORIES

Sound **T**ransmission **C**lass

B.S. or B.S.-EN
British Standard

CATEGORY II IMPACT/SAFETY RATED
ANSI Z97.1 2004 U A

DETAIL DRAWING

2 PIECES OF 5/32" (4mm) FIRELITE LAMINATED TOGETHER.

INTERLAYER

FireLite® Plus
FROM
Anemostat

ANSI/UL9/10B/10C
16 CFR 1201 CAT II
ANSI Z97.1-2004 U A

CLASSIFIED UL
R13236 48S1

D-H-NT-90
OH-90

5/16 (8 mm)

D = Door
H = HOSE STREAM Tested
NT = Not Temperature Rise
OH = Opening (Window, Sidelite or Transom)

Anemostat manufacturing dimensions ±1/32 (1mm)
Actual dimensions are nominal and may vary based on component manufacturers tolerances.

PLEASE NOTE: On visible lite sizes larger than 1296 sq. in. (0.836 m^2) on 20/45 min. and 100 sq. in. (0.065 m^2) on 60/90/180 min., please consult with your Door / Frame Manufacturer's procedures, for their maximum glass size tested.

FireLite® Plus
FROM
Anemostat

ANSI/UL9/10B/10C
16 CFR 1201 CAT II
ANSI Z97.1-2004 U A

CLASSIFIED UL
R13236 48S1

D-H-NT-90
OH-90

ORDER SIZE HEIGHT

ORDER SIZE WIDTH
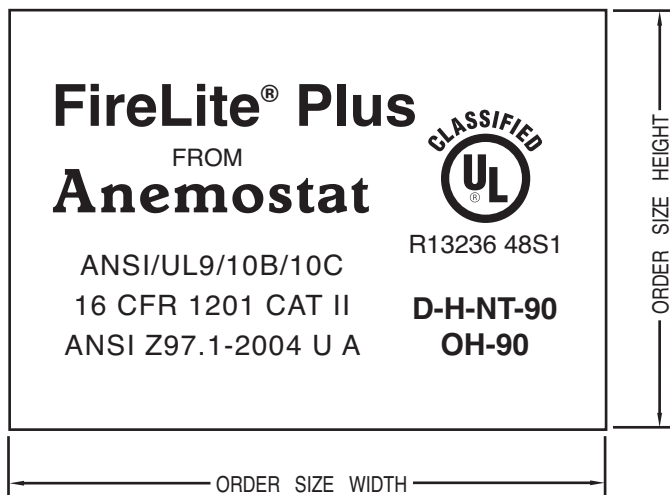
NOTE: Although recommended for use with LoPro metal vision frame and 1/32" (1mm), GT-132 Anemostat glazing tape (furnished loose), due to very tight tolerances, care must be taken to not over tighten vision frame screws that can cause cracking of the glass during installation.

STANDARD PRODUCT FEATURES

- **MATERIAL:** 2 pieces of PREMIUM or STANDARD FireLite clear ceramic laminated together with an interlayer for an overall 5/16" (8 mm) dimension.

- **INSTALLATION:** FireLite Plus shall be glazed into the appropriate fire-rated framing with 1/32" (1mm) fire-rated glazing tape, (supplied loose) to both sides of glass.

- **CLASSIFICATION MARKINGS:** Each piece of cut to size Clear FireLite Plus is permanently etched with the listing mark of U.L. in accordance with standards set forth by N.F.P.A. - 80 Revised.

- **USES:** FireLite Plus is a fire-rated and impact/safety rated glazing material. It carries listings for use in doors, sidelites, transoms and borrowed lites with fire rated requirements ranging from 20 minutes to 3 hours. May be lightly sandblasted/etched one side without affecting fire rating.

SOUND RATINGS with LoPro-STC

- **LoPro-STC with FireLite Plus:*** STC - 38
- **TESTED SIZE:** 24" X 36" (610mm x 914mm) CUTOUT / ASSEMBLY
- **TESTED IN ACCORDANCE WITH:** ASTM E90-09 and ASTM E2235-04. STC measurements determined in accordance with ASTM E413-04. Testing conducted at Western Electro - Acoustic Laboratory, Santa Clarita, CA.

* Fire Rated

IMPACT / SAFETY RATINGS

- Meets ANSI Z97.1-2004 U A and CPSC 16CFR-1201 (Cat. I and II)

- *IMPORTANT:* Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

FIRE RATINGS (w/ U.L. classification markings) Positive Pressure

- Listed and labeled by Underwriters Laboratories, Inc.® Test report numbers for labeled fire-rated assemblies include: UL File No. R13377. All above tests performed in accordance with ASTM E-152, ASTM E-163, NFPA 252, NFPA 257, UL-9, UL-10B, UL-10C, UBC 43.2, UBC 43.4, UBC 7.2-97, UBC 7.4-97, CSFM 43.7, CAN4 S-104 and CAN4 S-106.

DOORS

- **20/45/60 MINUTE:** Approved listing at 3204 sq. in. (2.067 m^2) visible lite. max. width 36" (914mm), max. height 89" (2261mm).
- **90* MINUTE:** Approved listing at 2034 sq. in. (1.31 m^2) visible lite. max. width 36" (914mm), max. height 56 1/2" (1435mm).
- **60**/90** MINUTE:** Approved listing at 100 sq. in. (0.065 m^2) visible lite. max. width 12" (305mm), max. height 33" (838mm).
- **3 HOUR:** Approved listing at 100 sq. in. (0.065 m^2) visible lite. max. width 12" (305mm), max. height 33" (838mm).

*Non Temperature Rise Door   ** Temperature Rise Door

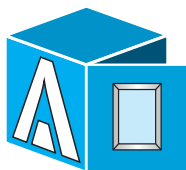### OTHER THAN DOORS (TRANSOMS, SIDELITES and BORROWED LITES)

- **20/45 MINUTE:** Approved listing at 3325 sq. in. (2.145 m^2) visible lite. max. width 95" (2413mm), max. height 95" (2413mm).
- **60 MINUTE:** Approved listing at 3325 sq. in. (2.145 m^2) visible lite. max. width 95" (2413mm), max. height 95" (2413mm).
- **90 MINUTE:** Approved listing at 2627 sq. in. (1.695 m^2) visible lite. max. width 56-1/2" (1435mm), max. height 56-1/2" (1435mm).

BS 476.22 - British
Timber Doors - 30 / 60 min.

BS-EN-1634 - British
Steel Doors - 240 min.

Job Name & Location	Submitted by

JULY 2014

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

FireLite® NT
3/16" (5mm) CLEAR
WITH SAFETY FILM
(Fire & Impact/Safety Rated)
FIRE RATED BY

 **UNDERWRITERS'
LAMINATORIES**
B.S. or B.S.-EN
British Standard

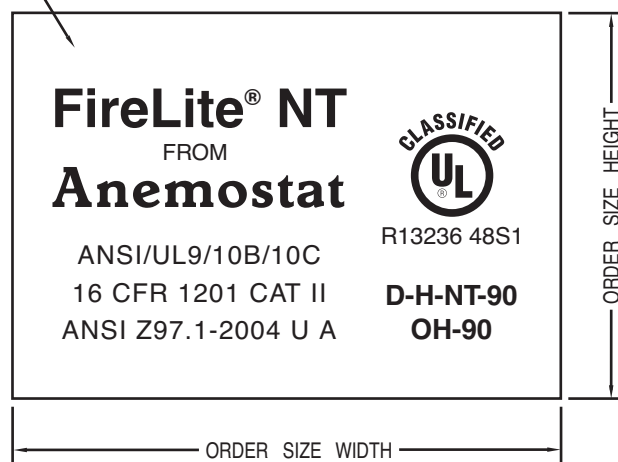**S**ound **T**ransmission **C**lass

CATEGORY II IMPACT/SAFETY RATED
ANSI Z97.1 2004 U A

DETAIL DRAWING

PLEASE NOTE: On visible lite sizes larger than 1296 sq. in. (0.836 m²) on 20/45 min. and 100 sq. in. (0.065 m²) on 60/90/180 min., please consult with your Door / Frame Manufacturer's procedures, for their maximum glass size tested.

WITH SURFACE APPLIED SAFETY FILM

D = Door
H = HOSE STREAM Tested
NT = Not Temperature Rise
OH = Opening (Window, Sidelite or Transom)

Anemostat manufacturing dimensions ±1/32 (1mm)
Actual dimensions are nominal and may vary
based on component manufacturers tolerances.

3/16"
(5 mm)

STANDARD PRODUCT FEATURES

- **MATERIAL:** 3/16" (5 mm overall) Clear Glass Ceramic with Surface-Applied Safety Film.
- **FINISH:** Clear available in:
  STANDARD (non-polished surfaces)
  PREMIUM - (polished surfaces)
  OBSCURE (patterned) available in standard only.
- **APPROX. VISIBLE TRANSMISSION:** 88%
- **INSTALLATION:** FireLite NT shall be glazed into the appropriate fire-rated framing with the film side to the building interior. Installation shall be with 1/8" (3.2mm) fire-rated glazing tape, (supplied loose) to both sides of glass.
- **CLASSIFICATION MARKINGS:** Each piece of cut to size Clear FireLite NT is permanently etched with the listing mark of U.L. in accordance with standards set forth by N.F.P.A. - 80 Revised.
- **USES:** FireLite NT carries listings for use in door, sidelites, transoms and borrowed lites with fire rating requirements ranging from 20 minutes to 3 hours. May be lightly sandblasted/etched one side without affecting fire rating.
- *NOTE:* Film is applied to one side of FireLite NT only. However, Fire Rating is not dependent on which way film faces in interior applications
- Occasional process marks or small occlusions may occur due to the filming method employed in manufacturing this product. However, this does not affect the fire/safety performance or general vision area of the glazing and should not be a cause for rejection. Please refer to our Quality Specifications & Inspection Guidelines for Filmed Glazing for additional information (page 3).

IMPACT / SAFETY RATINGS

- Meet ANSI Z97.1-2004 U A and CPSC 16CFR-1201 (Cat. I and II).
- *IMPORTANT:* Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

FIRE RATINGS (w/ U.L. classification markings) Positive Pressure

- Listed by Underwriters Laboratories, Inc.® Test report number for labeled fire-rated assemblies is: UL File No. R13377. Tests performed in accordance with ASTM E-152, ASTM E-163, NFPA 252, UL-9, UL-10B, UL-10C, UBC 43.2, UBC 43.4, UBC 7.2-97, UBC 7.4-97, CSFM 43.7, CAN4 S-104 and CAN4 S-106.

DOORS

- **20/45/60 MINUTE:** Approved listing at 3204 sq. in. (2.067 m²) visible lite.
  max. width 36" (914mm), max. height 89" (2261mm).
- **90* MINUTE:** Approved listing at 2034 sq. in. (1.312 m²) visible lite.
  max. width 36" (914mm), max. height 56 1/2" (1435mm).
- **60**/90** MINUTE:** Approved listing at 100 sq. in. (0.065 m²) visible lite.
  max. width 12" (305mm), max. height 33" (838mm).
- **3 HOUR:** Approved listing at 100 sq. in. (0.065 m²) visible lite.
  max. width 12" (305mm), max. height 33" (838mm).

*Non Temperature Rise Door.   ** Temperature Rise Door

OTHER THAN DOORS (TRANSOMS, SIDELITES and BORROWED LITES)

- **20/45 MINUTE:** Approved listing at 3325 sq. in. (2.145 m²) visible lite.
  max. width 95" (2413mm), max. height 95" (2413mm).
- **60 MINUTE:** Approved listing at 3325 sq. in. (2.145 m²) visible lite.
  max. width 95"(2413mm), max. height 95" (2413mm).
- **90 MINUTE:** Approved listing at 2627 sq. in. (1.694 m²) visible lite.
  max. width 56-1/2" (1435mm), max. height 56-1/2" (1435mm).

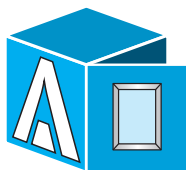**BS 476.22** - British
Timber Doors - 30 / 60 min.

BS-EN-1634 - British
Steel Doors - 240 min.

SOUND RATINGS with LoPro-STC

- **LoPro-STC with FireLite NT (Fire Rated):**   STC - 35
- **TESTED SIZE:** 24" X 36" (610mm x 914mm) CUTOUT / ASSEMBLY
- **TESTED IN ACCORDANCE WITH:** ASTM E90-09 and ASTM E2235-04.
  STC measurements determined in accordance with ASTM E413-04.
  Testing conducted at Western Electro - Acoustic Laboratory, Santa Clarita, CA.

Job Name & Location	Submitted by

TECHNICAL DATA

FROM

Anemostat

Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

FireLite® IGU

15/16" (24mm) OR 1" (25mm)
INSULATED
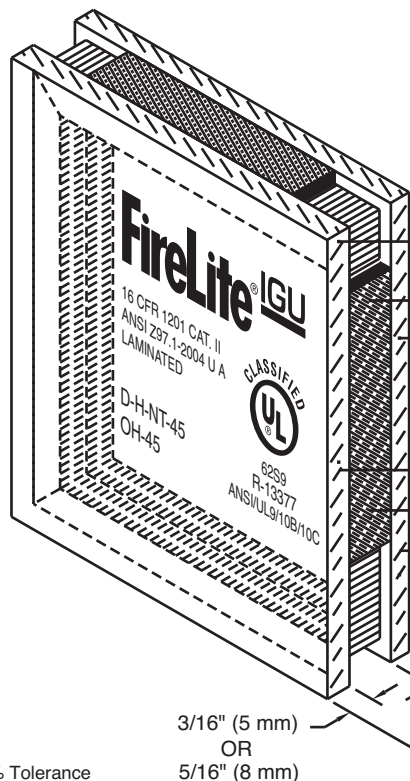(Fire & Impact/Safety Rated)

FIRE RATED BY
UL UNDERWRITERS'
LABORATORIES

Sound
Transmission
Class

CATEGORY II IMPACT/SAFETY RATED
ANSI Z97.1 2004 U A

DETAIL DRAWING

PLEASE NOTE: On visible lite sizes larger than 1296 sq. in. (0.836 m²) on 20/45 min. and 100 sq. in. (0.065 m²) on 60/90/180 min., please consult with your Door / Frame Manufacturer's procedures, for their maximum glass size tested.

3/16" (5 mm) FIRELITE NT
(Film is on Outside)
1/2" (13 mm) AIRSPACE
1/4" (6 mm) TEMPERED
15/16" (24 mm) OVERALL
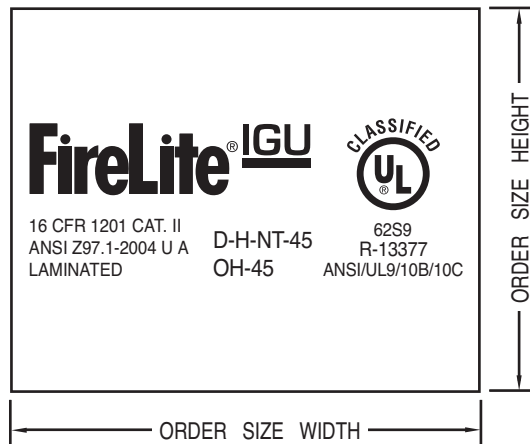
(CAT. II) IMPACT SAFETY RATED

— OR —

5/16" 8 mm) FIRELITE PLUS
7/16" (11 mm) AIRSPACE
1/4" (6 mm) TEMPERED GLASS
1" (25 mm) OVERALL

(CAT. II) IMPACT SAFETY RATED

1/4" (6 mm)

3/16" (5 mm)
OR
5/16" (8 mm)

±8% Tolerance

15/16" (24 mm) - with FIRELITE NT
1" (25 mm) - with FIRELITE PLUS

FireLite® IGU

16 CFR 1201 CAT. II
ANSI Z97.1-2004 U A
LAMINATED

D-H-NT-45
OH-45

CLASSIFIED **UL**

62S9
R-13377
ANSI/UL9/10B/10C

ORDER SIZE HEIGHT

ORDER SIZE WIDTH

D = Door
H = HOSE STREAM Tested
NT = Not Temperature Rise
OH = Opening (Window, Sidelite or Transom)

STANDARD PRODUCT FEATURES

- **MATERIAL:** 3/16" (5 mm) FireLite NT / 1/2" (13 mm) Airspace / 1/4" (6 mm) Tempered **or** 5/16" (8 mm) FireLite Plus / 7/16" (11 mm) Airspace / 1/4" (6 mm) Tempered Glass.
- **USES:** For exterior application where energy codes require an insulated unit and for interior applications for special needs (such as sound reduction).
- **INSTALLATION:** FireLite IGU shall be glazed into the appropriate fire-rated framing with the film side to the building interior. Installation shall be with 1/16" (1.6mm) fire-rated glazing tape, (supplied loose) to both sides of glass.

SOUND RATINGS with LoPro-STC

- **LoPro-STC with FireLite Plus IGU:*** STC - 42
- **TESTED SIZE:** 24" X 36" (610 X 914mm) CUTOUT / ASSEMBLY
- **TESTED IN ACCORDANCE WITH:** ASTM E90-09 and ASTM E2235-04. STC measurements determined in accordance with ASTM E413-04. Testing conducted at Western Electro - Acoustic Laboratory, Santa Clarita, CA.
- *** Fire Rated**
- *IMPORTANT:* Interpretation of building fire codes may vary. Consult with the local authority having juridiction in your area, to determine appropriate standards.

OPTIONAL FEATURES

Available incorporating a variety of Glass Products:
- Tinted.
- Reflective.
- Low E.
- Art Glass.
- One-Way Mirror.
- Obscure.
- May be lightly sandblasted or etched on one side without affecting fire rating.

FIRE RATINGS (with U.L. classification markings) Positive Pressure

DOORS
- **20/45/60* MINUTE:** Approved listing at 3204 sq. in. (2.067 m²) visible lite. max. width 36" (914mm), max. height 89" (2261mm)
- **90* MINUTE:** Approved listing at 2034 sq. in. (1.31 m²) visible lite. max. width 36" (914mm), max. height 56 1/2" (1435mm)
- **60**/90**MINUTE:** Approved listing at 100 sq. in. (0.065 m²) visible lite. max. width 12" (305mm), max. height 33" (838mm)
- **3 HOUR:** Approved listing at 100 sq. in. (0.065 m²) visible lite. max. width 12" (305mm), max. height 33" (838mm)

*Non Temperature Rise Door ** Temperature Rise Door

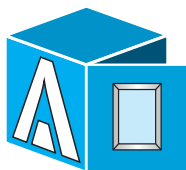**OTHER THAN DOORS (TRANSOMS, SIDELITES and BORROWED LITES)**
- **20/45/60 MINUTE:** Approved listing at 3325 sq. in. (2.145 m²) visible lite. max. width 95" (2413mm), max. height 95" (2413mm)
- **90 MINUTE:** Approved listing at 2627 sq. in. (1.695 m²) visible lite. max. width 56-1/2" (1435mm), max. height 56-1/2" (1435mm)

IMPACT / SAFETY RATINGS

- Meets ANSI Z97.1-2004 U A and CPSC 16CFR1201 (Cat. I and II)

Job Name & Location	Submitted by

TECHNICAL DATA
FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

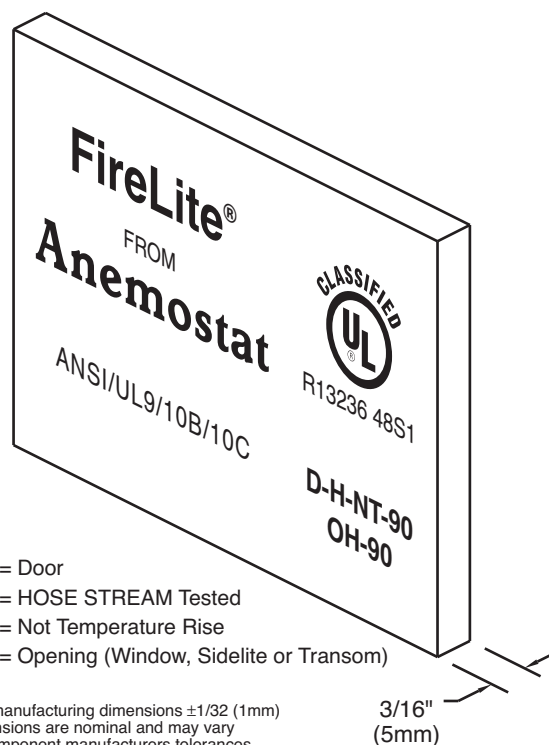# FireLite®
3/16" (5mm) CLEAR

FIRE RATED BY
UNDERWRITERS'
LABORATORIES

B.S. or B.S.-EN
British Standard

DETAIL DRAWING

FireLite®
FROM
Anemostat

ANSI/UL9/10B/10C

R13236 48S1

D-H-NT-90
OH-90

D = Door
H = HOSE STREAM Tested
NT = Not Temperature Rise
OH = Opening (Window, Sidelite or Transom)

Anemostat manufacturing dimensions ±1/32 (1mm)
Actual dimensions are nominal and may vary
based on component manufacturers tolerances.

3/16"
(5mm)

NON
IMPACT / SAFETY RATED PRODUCT
(Does Not Meet CPSC Cat I, Cat II or ANSI-Z97.1-2004
Impact Standards required by IBC 2003, 2006, and 2009)

FireLite®
FROM
Anemostat

ANSI/UL9/10B/10C

R13236 48S1

D-H-NT-90
OH-90

ORDER SIZE HEIGHT

ORDER SIZE WIDTH
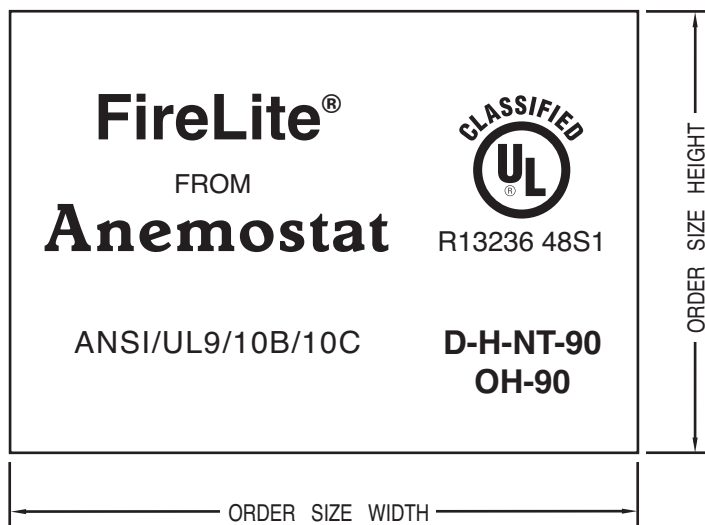
NOTE: FireLite is not an impact safety-rated product and should
not be specified as such. However we can offer FireLite Plus
and FireLite NT which both carry fire and impact safety ratings.

STANDARD PRODUCT FEATURES

- **MATERIAL:** 3/16" (5 mm) clear FireLite glass (no wire).

- **FINISH:** Clear available in:
  STANDARD (non-polished surfaces)
  PREMIUM - (polished surfaces)
  OBSCURE (patterned)

- **INSTALLATION:** FireLite shall be glazed into the appropriate
  fire-rated framing with 1/8" (3.2mm) fire-rated
  glazing tape, (supplied loose) to both sides of glass.

- **CLASSIFICATION MARKINGS:** Each piece of cut to size Clear FireLite
  is permanently etched with the listing mark of U.L. and W.H.I. in
  accordance with standards set forth by N.F.P.A. - 80 revised.

- **USES:** In applications requiring a fire rating in transoms, walls or
  borrowed lites and where clear glass clarity is desired, and no
  safety rating is required. May be lightly sandblasted/etched one
  side without affecting fire rating.

- *IMPORTANT:* Interpretation of building and fire codes may vary.
  Consult with the local authority having jurisdiction in
  your area, to determine appropriate standards.

OPTIONAL FEATURES

- **SIZES:** Customized glass sizes to fit most any shape.

FIRE RATINGS (w/ U.L. classification markings) Positive Pressure

- Listed by Underwriters Laboratories, Inc., and Warnock Hersey International Inc., Firelite
  was tested to fire-rating standards such as ASTM E-163, CAN4 S-104, CAN4 S-106,
  CSFM 43.7, NFPA 80 NFPA 257, UBC 43.2, UBC 43.4, UBC 7.2-97, UBC 7.4-97, UL-9,
  UL-10B AND UL-10C.

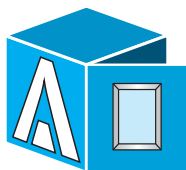**OTHER THAN DOORS (TRANSOMS, SIDELITES and BORROWED LITES)**

- **20/45/60 MINUTE:** Approved listing at 3325 sq. in. (2.15 m²) visible lite.
  max. width 95" (2413mm), max. height 95" (2413mm).
- **90 MINUTE:** Approved listing at 2627 sq. in. (1.695 m²) visible lite.
  max. width 56 1/2" (1435mm), max. height 56 1/2"(1435mm).

BS 476.22 - British
Timber Doors - 30 / 60 min.

BS-EN-1634 - British
Steel Doors - 240 min.

- **PLEASE NOTE:** On visible lite sizes larger than 1296 sq. in. (0.836 m²) on
  20/45 min. and 100 sq. in. (0.065 m²) on 60/90/180 min., please consult with
  your Frame Manufacturer's procedures, for their maximum glass size tested.

Job Name & Location	Submitted by

TECHNICAL DATA
FROM

Anemostat

Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

FireSAFE-20™
FireSAFE-30™
British Version
1/4" (6mm) CLEAR
(Fire & Impact/Safety Rated)

FIRE RATED BY:	UL	**B.S.-476.22** British Standard
IMPACT/ SAFETY RATED:	CATEGORY II	ANSI Z97.1-2004 U A

DETAIL DRAWING

*Fire*SAFE-20™
FROM
Anemostat
ANSI/UL9/10B/10C
TEMPERED 6mm
16 CFR 1201 CAT II
ANSI Z97.1-2004 U A
CLASSIFIED UL ®
48S1
R13236
D-NH-NT-20
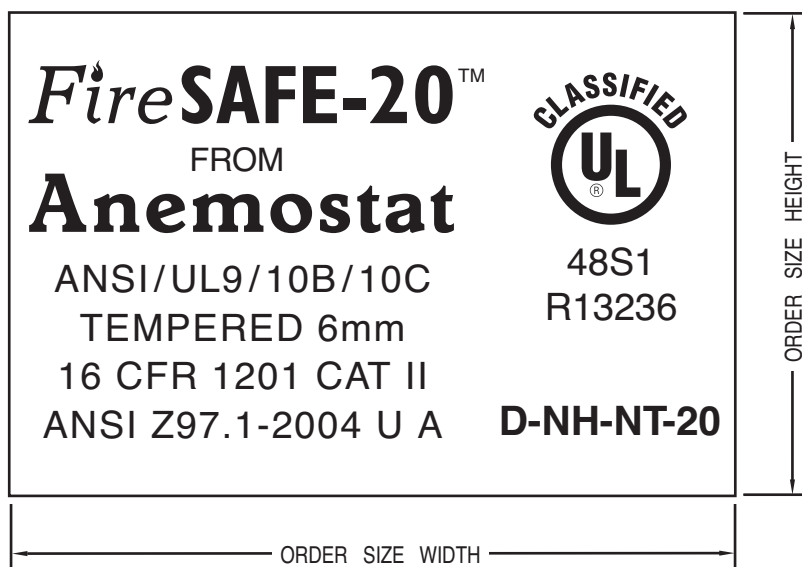
D   = Door
NH = NOT HOSE STREAM Tested
NT = Not Temperature Rise

Anemostat manufacturing dimensions ±1/32 (1mm)
Actual dimensions are nominal and may vary
based on component manufacturers tolerances.

1/4" (6 mm)

ORDER SIZE HEIGHT
ORDER SIZE WIDTH

STANDARD PRODUCT FEATURES

· **MATERIAL:** 1/4" (6 mm) Specially Tempered Clear.

· **APPROX. VISIBLE TRANSMISSION:** 89%

· **INSTALLATION:** FireSAFE-20 shall be glazed into the appropriate fire rated framing with GT-18, 1/8" (3.2mm) fire rated glazing tape (supplied loose), to both sides of glass.

· **CLASSIFICATION MARKINGS:** Each piece of FireSAFE-20/30 shall be labeled with the appropriate marking on sizes up to 2584 sq.in. (1.67 m²)

· **USES:** FireSAFE-20/30 is a 1/4" (6mm) fire-rated and impact safety-rated glazing material. It carries listings for use in doors with a fire rating requirement of 20 minutes (30 minutes - British Standard). (WITHOUT HOSE STREAM TEST).
May be lightly sandblasted / etched or beveled on one side without affecting fire rating

· *IMPORTANT:* Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction inyour area, to determine appropriate standards.

FIRE RATINGS (with U.L. classification markings) Positive Pressure

· Listed and labeled by Underwriters Laboratories, Inc.® Test report numbers for labeled 20 minute fire-rated assemblies include: UL File No. R13236. All above tests performed in accordance with ASTM E-2074, ASTM E-2010, CSFM 43.7, NFPA 252,UBC 43.2, UBC 7.2-97, UBC 7.4-97, UL-9, UL-10B and UL-10C.

DOORS

· **20 MINUTE:** Approved listing at 2584 sq. in. (1.67 m²) visible lite.
max. width 34" (864mm), max. height 76" (1930mm).
(WITHOUT HOSE STREAM)

BS 476.22 Timber and Steel Doors - 30 min.
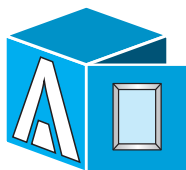British Standard

· FireSAFE-30 requires Ceramic Glazing Tape (CGT)

IMPACT / SAFETY RATINGS

· Meets ANSI Z97.1-2004 U A and CPSC 16CFR1201 (Cat. I and II)

· **PLEASE NOTE:** On visible lite sizes larger than 1296 sq. in. (0.836 m²) on 20 min., please consult with your Door / Frame Manufacturer's procedures, for their maximum glass size tested.

Job Name & Location	Submitted by

TECHNICAL DATA

FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

FireGlass-20
1/4" (6mm) CLEAR
(Fire & Impact/Safety Rated)

FIRE RATED BY
(UL) UNDERWRITERS'
LABORATORIES

CATEGORY II IMPACT/SAFETY RATED

DETAIL DRAWING

fireglass20
TEMPERED U A
16CFR 1201 CAT. II
ANSI Z97.1-2004
SGCC 2010 6mm
D-NH-NT-20
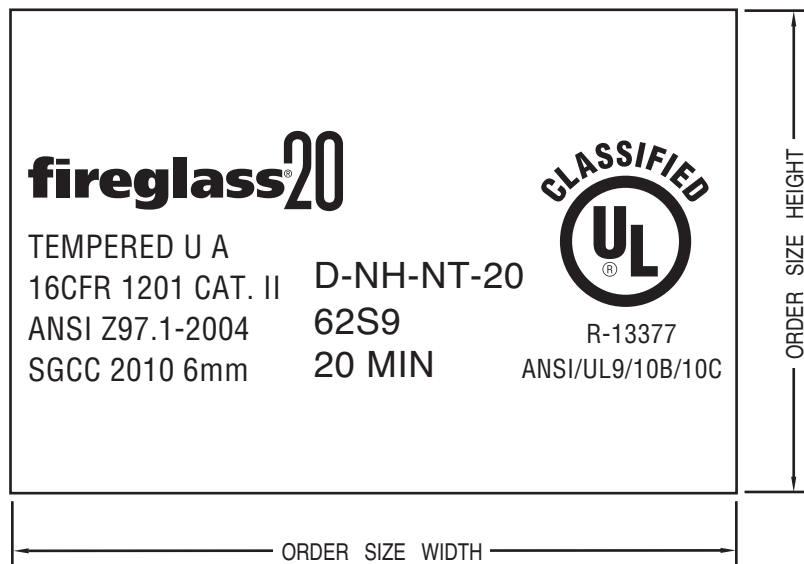62S9
20 MIN
CLASSIFIED (UL)
R-13377
ANSI/UL9/10B/10C

D = Door
NH = NOT HOSE STREAM Tested
NT = Not Temperature Rise

Anemostat manufacturing dimensions ±1/32
Actual dimensions are nominal and may vary
based on component manufacturers tolerances.

1/4"
(6 mm)

fireglass20
TEMPERED U A
16CFR 1201 CAT. II
ANSI Z97.1-2004
SGCC 2010 6mm
D-NH-NT-20
62S9
20 MIN
CLASSIFIED (UL)
R-13377
ANSI/UL9/10B/10C

ORDER SIZE HEIGHT

ORDER SIZE WIDTH

STANDARD PRODUCT FEATURES

· **MATERIAL:** 1/4" (6 mm) Specially Tempered Clear.

· **INSTALLATION:** FireGlass-20 shall be glazed into the appropriate
fire-rated framing with setting blocks and 1/8" fire-rated glazing
tape, (supplied loose) to both sides of glass. Check for
clearance around the edges, and adjust setting blocks as
needed. Openings must be plumb and square. Allow for a
minimum edge clearance of 1/4" (+1/8" / -1/16") and a minimum
edge cover of 3/8" (+1/16" / -1/16") Inspect each piece of
FireGlass-20 immediately before installation and eliminate any
glass with observable edge damage or face imperfections.
Place setting blocks, 3" minimum (76mm) at the quarter points.

· **CLASSIFICATION MARKINGS:** Each piece of FireGlass-20 shall be
labeled with the appropriate marking on sizes up to
6,396 sq.in. (4.126 m²)

· **USES:** FireGlass-20 is a 1/4" (6mm) fire-rated and impact safety-rated glazing
material. It carries listings for use in doors, sidelites,
transoms and borrowed lites with a fire rating requirement
of 20 minutes. (WITHOUT HOSE STREAM TEST). May be lightly
sandblasted / etched or beveled on one side without affecting fire rating

· *IMPORTANT:* Interpretation of building and fire codes may vary.
Consult with the local authority having jurisdiction in
your area, to determine appropriate standards.

Also available as an IGU, contact factory.

FIRE RATINGS (with U.L. classification markings) Positive Pressure

· Listed and labeled by Underwriters Laboratories, Inc.® Test report numbers for
labeled 20 minute fire-rated assemblies include: UL File No. R13377. All above
tests performed in accordance with ASTM E-152, ASTM E-163, CSFM 43.7,
NFPA 252,UBC 43.2, UBC 7.2-97, UBC 7.4-97, UL-9, UL-10B and UL-10C.

DOORS
· **20 MINUTE:** Approved listing at 3204 sq. in. (2.067 m²) visible lite.
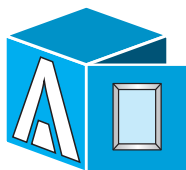max. width 36" (914mm), max. height 89" (2261mm).
(WITHOUT HOSE STREAM)

Before specifying Fireglass-20 in any location other than a 20 minute door leaf, please consult
with your local Authority Having Jurisdiction.

IMPACT / SAFETY RATINGS

· Meets ANSI Z97.1 and CPSC 16CFR1201 (Cat. I and II)

· **PLEASE NOTE:** On visible lite sizes larger than 1296 sq. in. (0.836 m²) on
20 min., please consult with your Door / Frame Manufacturer's procedures, for
their maximum glass size tested.

Job Name & Location	Submitted by

TECHNICAL DATA

FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

FREQUENTLY
ASKED
QUESTIONS

PILKINGTON
PYROSTOP™

DETAIL DRAWING

What is it?

Pilkington Pyrostop™ is a multi-laminate fire-resistant glazing material, manufactured by Pilkington for more than 20 years. It offers high impact safety and fire ratings up to 2 hours. In addition to stopping the spread of flames and smoke, Pilkington Pyrostop™ acts as a barrier to the transfer of heat, protecting lives and property.

Why a multi-laminate?

Ordinary glass cannot survive intense heat on its own. Unless you're talking about alternative glazing materials, such as the ceramic FireLite products, fire-rated glass must be "reinforced" in some way to provide fire protection. There are several ways to do this. Glass can be specially tempered, which works to a degree, but tempered glass cannot withstand thermal shock. Wires can be inserted in the glass to hold it in place during a fire, but that raises concerns over impact safety. And wired glass has a less desirable appearance than clear glass.

Pilkington Pyrostop™ achieves a fire rating via a different option. Multiple layers of glass "sandwich" special interlayers. During a fire, the pane facing the fire fractures but is held in place by the interlayer. That interlayer turns to foam, which effectively prevents heat from passing through. As the fire continues to burn, the next layer of glass breaks and the next interlayer turns to foam. This pattern repeats for the duration of the fire.

Why does Pilkington Pyrostop™ vary in thickness?

The thickness of Pilkington Pyrostop™ depends on the fire rating required. A window with a 45 minute rating will be much thinner than a 2 hour fire-rated wall. The longer the time frame, the more layers needed to block the heat.

What does a "barrier-to-heat" mean?

A "barrier-to-heat" product is one that has been tested to the same standard as a solid barrier wall (ASTM E-119). It prevents a fire's radiant heat from transferring through the wall to the space on the other side.

This can be critical in certain areas of a building. For example, in a multi-story office building, there might be the possibility of tenants being trapped in a stairwell for a long period of time during a fire. Since structural fires can quickly exceed 1,500° F (816° C), temperatures could quickly rise to an intolerable level, even if flames do not enter the stairwell.

Similarly, sensitive computer rooms can be protected from damage by barrier-to-heat products. Tests have shown that even with a fire raging on one side of Pilkington Pyrostop™, a person can safely place their hand on the opposite side of the glass without getting burned.

Some products are being marketed as "significantly reducing radiant heat." However, these products do not meet the required test standard for barrier-to-heat products. If there is a concern about the dangers of high temperatures, make sure the glass you choose has been tested as a fire wall and meets ASTM E-119.

Does Pilkington Pyrostop™ have a tint?

Most multi-laminate products take on a significant amount of color, due to the iron in the glass. Pilkington incorporates a special OptiWhite™ process in all Pyrostop™ products with a rating of 60 minutes or more to eliminate any tint and provide outstanding clarity.

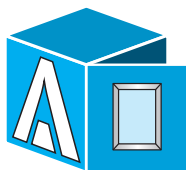Ordinary multilaminate products have a definite green tint.

Pilkington Pyrostop is clear.

Can it be cut?

As with all glazing that acts as a true fire barrier wall, Pilkington Pyrostop™ cannot be cut in the field.

Other Questions?

Check our Technical Data Sheets, e-mail: door@anemostat.com or call 310-835-7500. We're here to help!

TECHNICAL DATA
FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

Pyrostop®
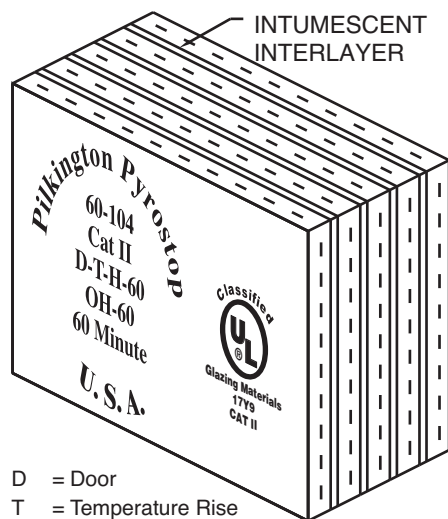(Fire & Impact/Safety Rated)

FIRE RATED BY
UNDERWRITERS' LABORATORIES

Sound
Transmission
Class

CATEGORY II IMPACT/SAFETY RATED
ANSI Z97.1 2004 U A

DETAIL DRAWING

INTUMESCENT INTERLAYER

AVAILABLE THICKNESSES
3/4" (19mm)
7/8" (23mm)
1-1/16" (27mm)
1-5/16" (33mm)
1-7/16" (37mm)
1-9/16" (40mm)
1-5/8" (41mm)
2-1/8" (54mm)
2-3/16" (56mm)
2-3/8" (60mm)
2-7/16" (62mm)

D = Door
T = Temperature Rise
H = HOSE STREAM Tested
OH = Opening (Window, Sidelite or Transom)

±8% Tolerance

STANDARD PRODUCT FEATURES

- **MATERIAL:** Manufactured using multiple layers of float glass laminated with transparent intumescent interlayers.

- **INSTALLATION:** Pyrostop shall be glazed vertically into approved fire-rated framing with hard-wood setting blocks located at the quarter points for proper support of the glass. Glaze with closed cell PVC (GT-116 supplied loose) tape or silicone wet seal. Exterior grade Pyrostop shall be glazed with the PVB layer toward the exterior of the building. Setting blocks to be furnished by installer. Openings must be plumb and square. Allow a minimum clearance of 3/16" (5mm) on each edge. Before installation, inspect each piece of Pyrostop and eliminate any glass with observable edge damage or face imperfections. Check for clearance around the edges, and adjust setting blocks as needed. Do not remove protective edge tape. Do not pressure glaze.

- **CLASSIFICATION MARKING:** Each piece of Pyrostop shall be permanently labeled with the appropriate marking.

- **ADDITIONAL PRODUCT FEATURES:** Pilkington Pyrostop is a fire-rated and impact/safety-rated glazing material. Pilkington Pyrostop also blocks heat, protecting people and valuables on the non-fire side of the glass where heat transfer might be a concern. It is listed for use in doors, sidelites, transoms, borrowed lites and wall applications with a fire rating of up to 2 hours.

IMPACT / SAFETY RATINGS

- Meets ANSI Z97.1 and CPSC 16CFR1201 (Cat. I and II)

SOUND RATINGS with LoPro-STC

- **LoPro-STC with Pyrostop 60-101 7/8" (23mm):*** STC - 41
- **TESTED SIZE:** 24" X 36" (610 X 914mm) CUTOUT / ASSEMBLY
- **TESTED IN ACCORDANCE WITH:** ASTM E90-09 and ASTM E2235-04. STC measurements determined in accordance with ASTM E413-04. Testing conducted at Western Electro - Acoustic Laboratory, Santa Clarita, CA.
- * Fire Rated - see Glazing Section for ratings and maximum allowable sizes

ORDER SIZE HEIGHT
ORDER SIZE WIDTH

FIRE RATINGS (with U.L. classification markings) Positive Pressure

- Listed with Underwriters Laboratories, File numbers R16644 (doors and windows) and R16132 (walls). Tests performed in accordance with ASTM E-119, CAN/ULC S101, ASTM E2074, ASTM E2010, UL 263, UL 9, UL 10B, UL 10C, CSFM 43.7, NFPA 80, NFPA 251, NFPA 252, NFPA 257, UBC 43.2, UBC 43.4, UBC 7-2, UBC 7-4, CAN4 S-104, CAN4 S-106. Approved for use in New York City; MEA 241-00-M. Approved for use in Los Angeles; LARR 25798.

DOORS - Approved Listing
- **45/60/90 MINUTES:** at 3724 sq. in. (2.403 m²) visible lite. max. width 41-5/8" (1058mm), or max height 89-3/4" (2280mm)
  - **3/4" (19mm)** - 45 min. / 40 dB -STC (45-200)
  - ***7/8" (23mm)** - 60 min. / 41 dB -STC (60-101) - with **LoPro-STC**
  - **1-1/16" (27mm)** - 60 min. / 44 dB -STC / *Level 1 -Bullet Resistance[†]* (60-201)
  - **1-5/16" (33mm)** - 45 min / 40 dB -STC (45-260)-IGU
  - ***1-7/16" (37mm)** - 90 min. / 45 dB -STC (90-102)
  - **1-9/16" (40mm)** -120 min. / 46 dB -STC / *Level II -Bullet Resistance[†]* (120-202)
  - **1-5/8" (41mm)** - 60 min. / 44 dB -STC (60-261)-IGU

TRANSOMS and WALLS - Approved Listing
- **45 MINUTES:** at 4500 sq. in.(2.903m²) max width 95-1/4" (2419mm), or max height 95-1/4" (2419mm)
  - **3/4" (19mm)** - 40 dB -STC (45-200)
  - **1-5/16" (33mm)** - 40 dB -STC (45-260)-IGU
- **60 MINUTES:** at 5605 sq. in.(3.615m²), max width 96" (2438mm), or max height 96" (2438mm)
  - ***7/8" (23mm)** - 41 dB -STC (60-101)
  - **1-1/16" (27mm)** - 44 dB -STC, *Level 1 -Bullet Resistance[†]* (60-201)
  - **1-5/8" (41mm)** - 44 dB -STC, (60-261)-IGU
- **120 MINUTES:** at 3724 sq. in. (2.403m²), max width 111" (2819mm), or max height 111" (2819mm)
  - **1-9/16" (40mm)** - 46 dB -STC*, Level II -Bullet Resistance[†]* (120-202)
  - **2-1/8" (54mm)** - 46 dB -STC, Int. (120-104)-IGU, Ext. (120-262)-IGU
  - **2-3/8" (60mm)** - 46 dB -STC (120-262)-IGU
- **120 MINUTES:** at 3724 sq. in. (2.403m²), max width 95" (2413mm), or max height 95"(2413mm)
  - **2-3/16" (56mm)** - 46 dB -STC, *Level III - Bullet Resistance* (120-201)-IGU
 - **2-7/16" (62mm)** - 46 dB -STC*, Level III - Bullet Resistance[†]* (120-201)-IGU

* Interior use only. All other sizes may be used in both interior and exterior applications

[†]*Bullet Resistance* (with film) must be specified on order.
 - Available up to Level VIII Bullet Resistance in different IGU Make-ups - Consult factory

- **IMPORTANT:** Interpretation of building and fire codes may vary. Consult with the local authority having jurisdiction in your area, to determine appropriate standards.

Job Name & Location	Submitted by
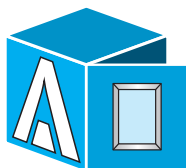
TECHNICAL DATA
FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
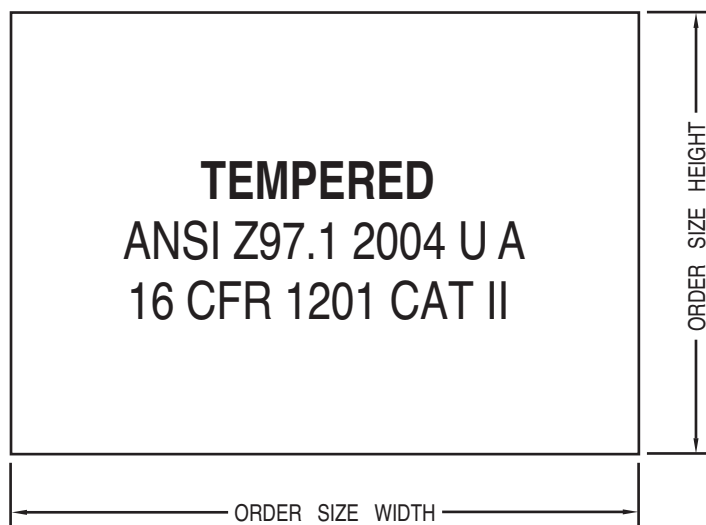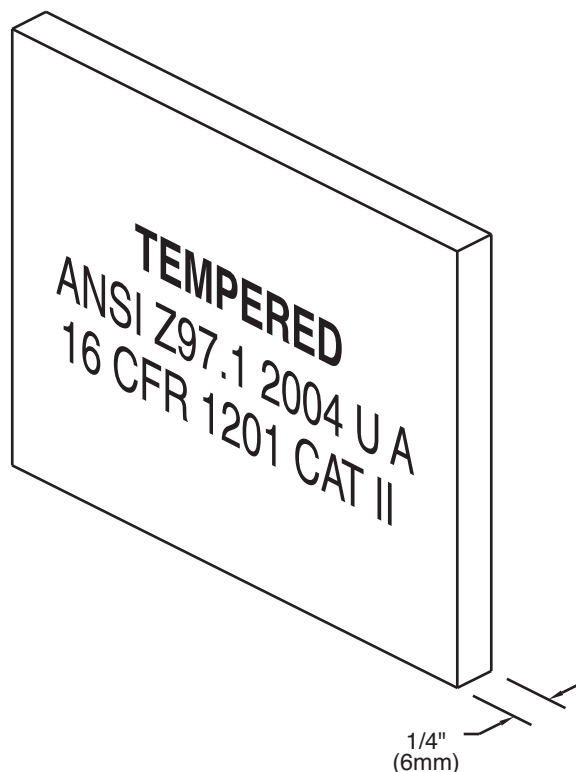e-mail: door@anemostat.com • website: www.anemostat.com

TEMPERED
IMPACT/SAFETY RATED
1/4" (6mm)

NOT FIRE RATED

CATEGORY II IMPACT/SAFETY RATED

DETAIL DRAWING

TEMPERED
ANSI Z97.1 2004 U A
16 CFR 1201 CAT II

1/4"
(6mm)

ORDER SIZE HEIGHT

ORDER SIZE WIDTH

STANDARD PRODUCT FEATURES

- **MATERIAL:** 1/4" (6mm) clear Tempered Glass is fully heat treated strengthened glass which is stronger than ordinary float glass.
- **INSTALLATION:** Tempered Glass shall be glazed into the appropriate framing with 1/8" (3.2mm) glazing tape (supplied loose) to both sides of glass.
- **STRENGTH:** It has bending and impact strengths which are 3 to 5 times higher than those of annealed glasses of the same thickness.
- **THERMAL SHOCK STRENGTH:** Is approximately three times as resistant to rapid temperature changes as annealed glass.
- **SAFETY:** Tempered Glass breaks into small particles upon impact, preventing serious injury, unlike annealed glass which can break into large, sharp pieces.

OPTIONAL FEATURES

- **COLORS:** Available in Bronze, Gray, Graylite, and Obscure.
- **SIZES:** Customized shapes to fit almost any shape vision frame. CANNOT be cut after manufacturing.
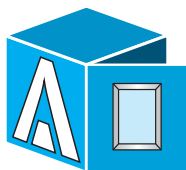
IMPACT / SAFETY RATINGS

- Meets ANSI Z97.1-2004 U A and CPSC 16 CFR 1201 Category II, Impact Test Standard.

CONFORMS TO THE FOLLOWING

- **ASTM C1036**
- **ASTM C1048**

Job Name & Location	Submitted by

TECHNICAL DATA

FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
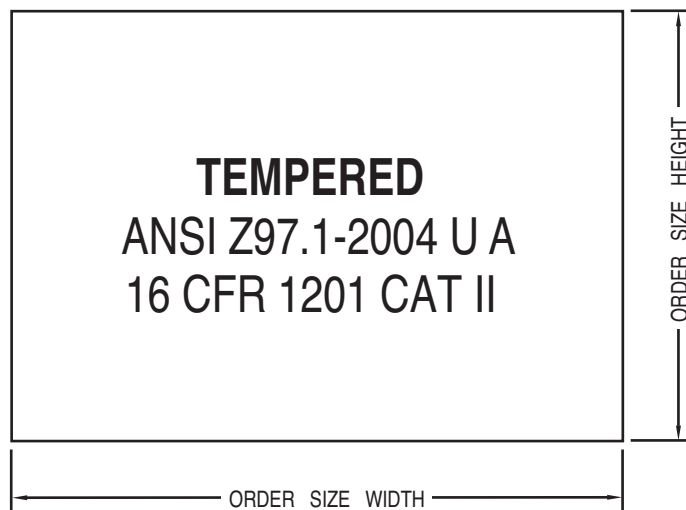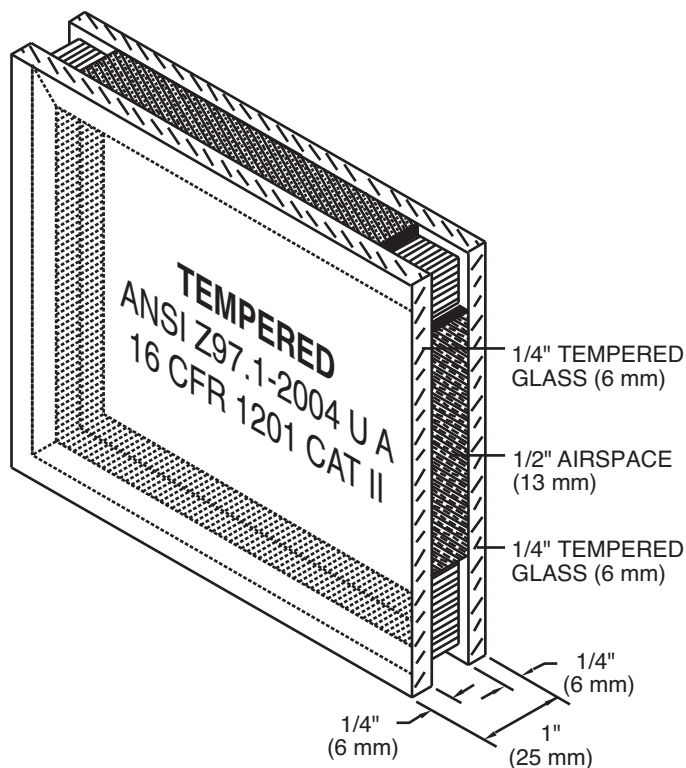e-mail: door@anemostat.com • website: www.anemostat.com

Tempered IGU
1" (25mm) INSULATED

NOT
FIRE RATED

Sound
Transmission
Class

CATEGORY II IMPACT/SAFETY RATED
ANSI Z97.1 2004 U A

DETAIL DRAWING

TEMPERED
ANSI Z97.1-2004 U A
16 CFR 1201 CAT II

1/4" TEMPERED GLASS (6 mm)

1/2" AIRSPACE (13 mm)

1/4" TEMPERED GLASS (6 mm)

1/4" (6 mm)

1/4" (6 mm)

1" (25 mm)

TEMPERED
ANSI Z97.1-2004 U A
16 CFR 1201 CAT II

ORDER SIZE HEIGHT

ORDER SIZE WIDTH

STANDARD PRODUCT FEATURES

- **MATERIAL:** 1/4" (6mm) clear Tempered Glass is fully heat treated strengthened glass which is stronger than ordinary float glass.
- **INSTALLATION:** Tempered IGU shall be glazed into the appropriate framing with 1/16" (1.6mm) glazing tape (supplied loose) to both sides of glass.
- **STRENGTH:** It has bending and impact strengths which are 3 to 5 times higher than those of annealed glasses of the same thickness.
- **THERMAL SHOCK STRENGTH:** Is appoximately three times as resistant to rapid temperature changes as annealed glass.
- **SAFETY:** Tempered Glass breaks into small particles upon impact, preventing serious injury, unlike annealed glass which can break into large, sharp pieces.
- **USES:** For applications where energy codes require an insulated unit and for interior applications for special needs such as sound reduction in non-fire rated doors and sidelites.

OPTIONAL FEATURES

- **COLORS:** Available in Bronze, Gray, Graylite, and Obscure.
- **SIZES:** Customized shapes to fit almost any shape vision frame. CANNOT be cut after manufacturing.

IMPACT / SAFETY RATINGS

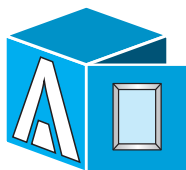- Meets ANSI Z97.1-2004 U A and CPSC 16 CFR 1201 Category II, Impact Test Standard.

SOUND RATINGS with LoPro-STC

- **LoPro-STC with Tempered IGU:** STC - 35 (Safety Rated Only)
- **TESTED SIZE:** 24" X 36" CUTOUT / ASSEMBLY
- **TESTED IN ACCORDANCE WITH:** ASTM E90-09 and ASTM E2235-04. STC measurements determined in accordance with ASTM E413-04. Testing conducted at Western Electro - Acoustic Laboratory, Santa Clarita, CA.

CONFORMS TO THE FOLLOWING

- **ASTM C1036**
- **ASTM C1048**

Job Name & Location	Submitted by

TECHNICAL DATA

FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
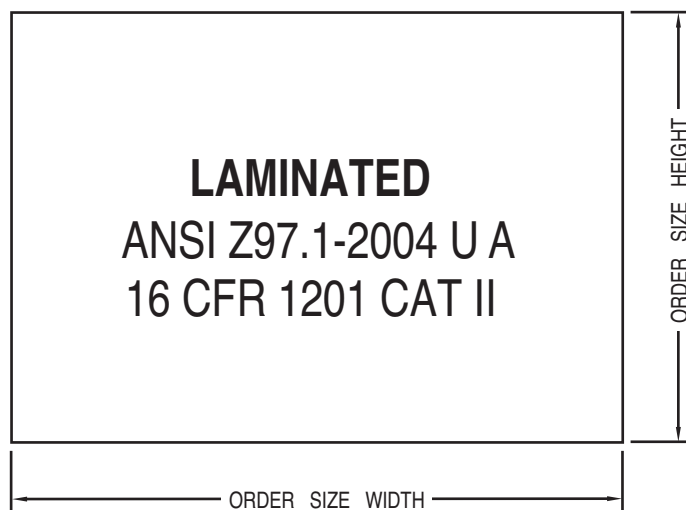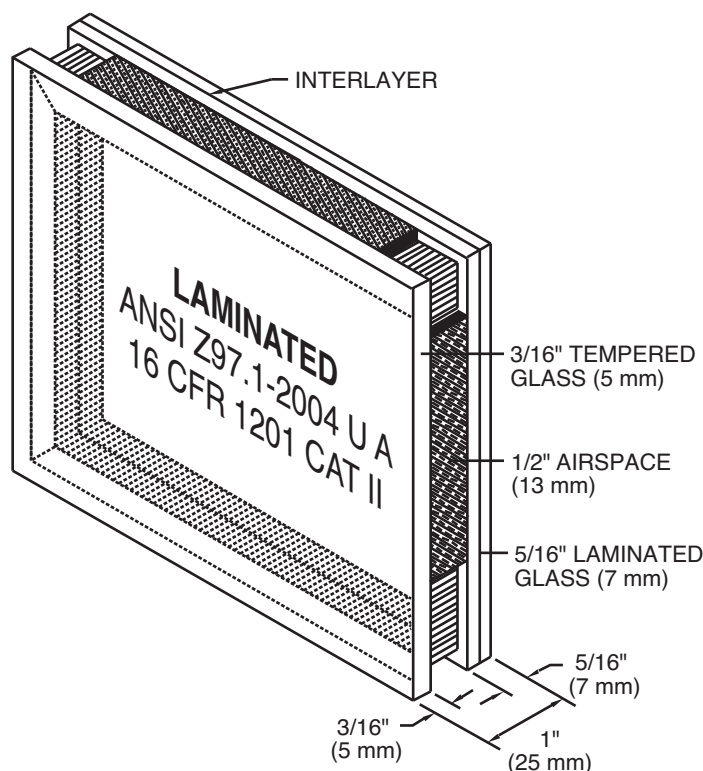e-mail: door@anemostat.com • website: www.anemostat.com

Laminated IGU
1" (25mm) INSULATED

NOT
FIRE RATED

Sound
Transmission
Class

CATEGORY II IMPACT/SAFETY RATED
ANSI Z97.1 2004 U A

DETAIL DRAWING

INTERLAYER

LAMINATED
ANSI Z97.1-2004 U A
16 CFR 1201 CAT II

3/16" TEMPERED
GLASS (5 mm)

1/2" AIRSPACE
(13 mm)

5/16" LAMINATED
GLASS (7 mm)

5/16"
(7 mm)

3/16"
(5 mm)

1"
(25 mm)

LAMINATED
ANSI Z97.1-2004 U A
16 CFR 1201 CAT II

ORDER SIZE HEIGHT

ORDER SIZE WIDTH

STANDARD PRODUCT FEATURES

· **MATERIAL:** 3/16" (5mm) clear Tempered Glass is heat treated strengthened glass which is stronger than ordinary float glass. 5/16" (8mm) Laminated Glass is two sheets of glass with an interlayer

· **INSTALLATION:** Laminated IGU shall be glazed into the appropriate framing with 1/16" (1.6mm) glazing tape (supplied loose) to both sides of glass.

· **STRENGTH:** It has bending and impact strengths which are 3 to 5 times higher than those of annealed glasses of the same thickness.

· **THERMAL SHOCK STRENGTH:** Is appoximately three times as resistant to rapid temperature changes as annealed glass.

· **SAFETY:** Tempered Glass breaks into small particles upon impact, preventing serious injury, unlike annealed glass which can break into large, sharp pieces. When Laminated Glass breaks numerous cracks appear but glass fragments tend to adhere to the interlayer.

· **USES:** For applications where energy codes require an insulated unit and for interior applications for special needs such as sound reduction in non-fire rated doors and sidelites.

OPTIONAL FEATURES

· **COLORS:** Available in Bronze, Gray, Graylite, and Obscure.
· **SIZES:** Customized shapes to fit almost any shape vision frame. CANNOT be cut after manufacturing.

IMPACT / SAFETY RATINGS

· Meets ANSI Z97.1-2004 U A and CPSC 16 CFR 1201 Category II, Impact Test Standard.
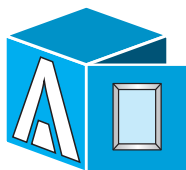
SOUND RATINGS with LoPro-STC

· **LoPro-STC with Laminated IGU:** STC - 42 (Safety Rated Only)
· **TESTED SIZE:** 24" X 36" (610 X 914mm) CUTOUT / ASSEMBLY
· **TESTED IN ACCORDANCE WITH:** ASTM E90-09 and ASTM E2235-04. STC measurements determined in accordance with ASTM E413-04. Testing conducted at Western Electro - Acoustic Laboratory, Santa Clarita, CA.

CONFORMS TO THE FOLLOWING

· **ASTM C1036**   · **ASTM C1172**
· **ASTM C1048**

Job Name & Location	Submitted by

For Most Current Info, Consult Factory or check our website, w w w . a n e m o s t a t . c o m

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

X-RAY-S GLASS
Impact/Safety Rated
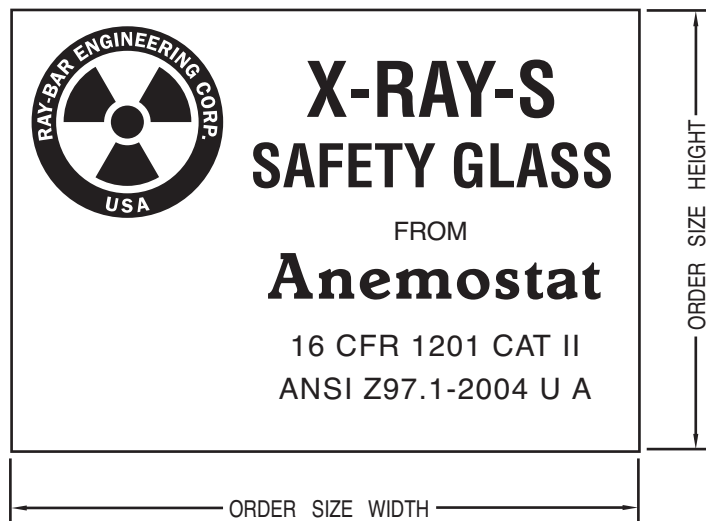**CATEGORY II** IMPACT/SAFETY RATED

X-RAY GLASS
NON-Impact/Safety Rated

5/16" (8mm) CLEAR
Radiation Protective Lead Glass

DETAIL DRAWING

X-RAY-S
SAFETY GLASS
FROM
Anemostat
16 CFR 1201 CAT II
ANSI Z97.1-2004 U A

5/16 (8 mm)

X-RAY-S
SAFETY GLASS
FROM
Anemostat
16 CFR 1201 CAT II
ANSI Z97.1-2004 U A

ORDER SIZE HEIGHT
ORDER SIZE WIDTH

STANDARD PRODUCT FEATURES

- **MATERIAL:** 5/16" (8mm) X-Ray-S Safety Glass
  5/16" (8mm) X-Ray Glass - Non-Safety Rated

- **FINISH:** Clear with slight yellow hue

- **INSTALLATION:** By using glazing tape or glazing compound on both sides of glass, sandwiched between a lead lined metal vision frame, or lead lined steel window frame.

- **CLASSIFICATION MARKINGS:** Each piece of glass is cut to size. 5/16" (8mm) X-Ray Safety Glass is permanently marked as meeting ANSI Z97.1 and CPSC 16 CFR 1201 Cat II requirements for impact resistance.

- **USES:** In applications requiring up to 2mm lead equivalent for X-Ray protection and impact resistance in a lead lined door or sidelite.

- **LEAD EQUIVALENT:** Nominal 2.0mm

- **LBS. LEAD EQUIVALENT / SQ. FT.:** 5.0 +

- **LIGHT TRANSMISSION:** 86% +

NOTE: Customer must specify lead shielding equivalent requirement. Calculations for lead shielding requirements should be determined by a health physicist currently recognized by the state in which the project occurs.

OPTIONAL FEATURES

- **SIZES:** Customized glass sizes to fit most any shape lead lined vision frame. Maximum size available is 48" x 96" (1219mm x 2438mm). Higher lead equivalencies are available upon request.

- Also available in a non-safety rated version for use in non-hazardous locations.

FIRE RATINGS (w/ U.L. classification markings) Positive Pressure

Only when utilizing Lead Lined **FGS-MS5-FR** and **FireLite® NT** or **FireLite® Plus**
- 20/45 minute: approved listing at 1296 square inch (0.836 m²) visible lite
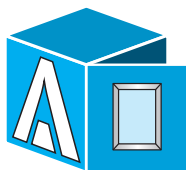- 60/90 minute: approved listing at 100 square inch (0.065 m²) visible lite

IMPACT / SAFETY RATINGS

X-Ray-S (only)
Meets ANSI Z97.1-2004 and CPSC 16CFR-1201.
- Category II - over 9 sq. ft. (0.836 m²)

CODE ACCEPTANCE AND CERTIFICATIONS

- Meets Federal Specification DD-G-451
- Meets NCRP Report #49 and #147

Job Name & Location	Submitted by

TECHNICAL DATA

FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e-mail: door@anemostat.com • website: www.anemostat.com
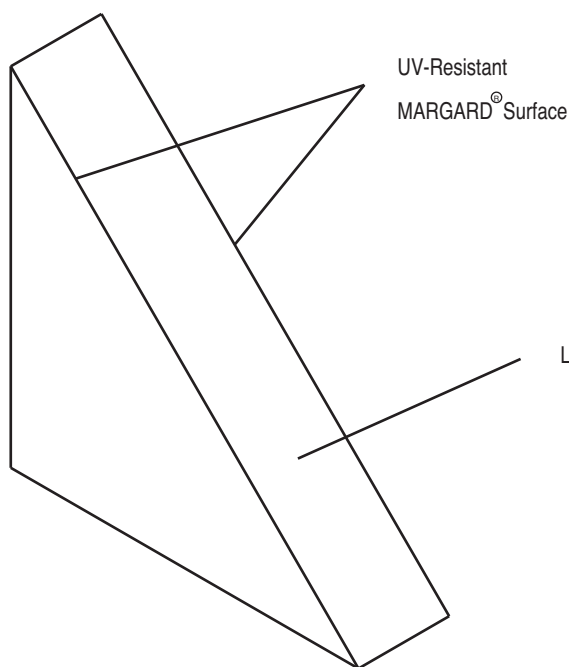
LEXAN®
MR10 SHEET

with
MARGARD® Surface UV
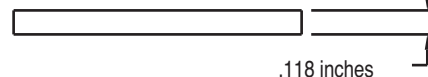and Abrasion Resistant GLAZING

1/8" (3mm), 1/4" (6mm)
3/8" (10mm), 1/2"(13mm)

CATEGORY I & II IMPACT/SAFETY RATED
A product of Sabic Innovative Plastics

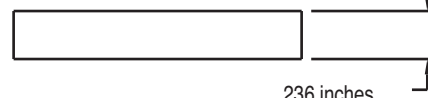## DETAIL DRAWING

UV-Resistant
MARGARD® Surface

LEXAN Sheet

±5% Tolerance

1/8" (3mm)
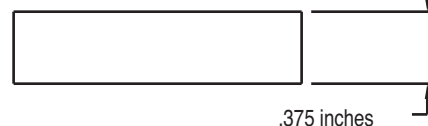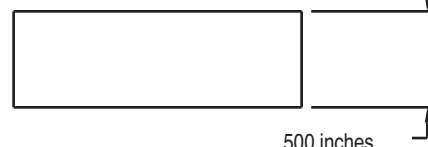
.118 inches

1/4" (6mm)

.236 inches

3/8" (10mm)

.375 inches

1/2" (13mm)

.500 inches

STANDARD PRODUCT FEATURES

- **AVAILABLE:** in 1/8" (3mm), 1/4" (6mm), 3/8" (10mm), 1/2" (13mm) thickness
- **COLORS:** Clear, Gray, Graylite and Bronze
- **FEATURES:** Combines the impact strength of LEXAN polycarbonate sheet with a proprietary Abrasion-UV resistant MARGARD® surface. Defies Graffiti to stick.
- **WARRANTY:** Backed by a Limited Ten-year warranty against breakage, yellowing, abrasion, loss of light transmission and coating delamination.
- **IMPACT RESISTANCE:** Virtually unbreakable, LEXAN MR-10 sheet has up to 250 times the impact strength of glass and 30 times that of acrylic
- **CLEANING INSTRUCTIONS:** Please see Cleaning Instructions for LEXAN, page 22, this section.

CODE COMPLIANCE

- Approved by BOCA, ICBO, and SBCCI Model Building Code Organizations and Dade County for use as an Approved Plastic Material for Light Transmitting Applications. LEXAN MR10 sheet has the highest rating - Class CC-1 Approved Plastic.

- UNDERWRITERS LABORATORIES: LEXAN MR10 sheet is listed as a Burglary-Resisting Glazing Material according to UL Standard 972.

- CPSC: 16 CFR 1201 Category I and II: LEXAN MR10 sheet complies with the Consumer Products Safety Commissions Safety Standard for Architectural Glazing Materials for both Category I and Category II applications.
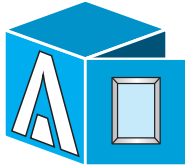
ABRASION RESISTANCE COMPARISON

TABER ABRASION	TEST METHOD	Uncoated Polycarbonate	LEXAN MR10 sheet	GLASS
100 Cycles CS10F	ASTM D1044 Z26.1	35.0	1.0 - 4.0	0.5

® LEXAN and MARGARD are Registered Trademarks of Sabic Innovative Plastics

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Job Name & Location	Submitted by

TECHNICAL DATA

FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e–mail: door@anemostat.com • website: www.anemostat.com

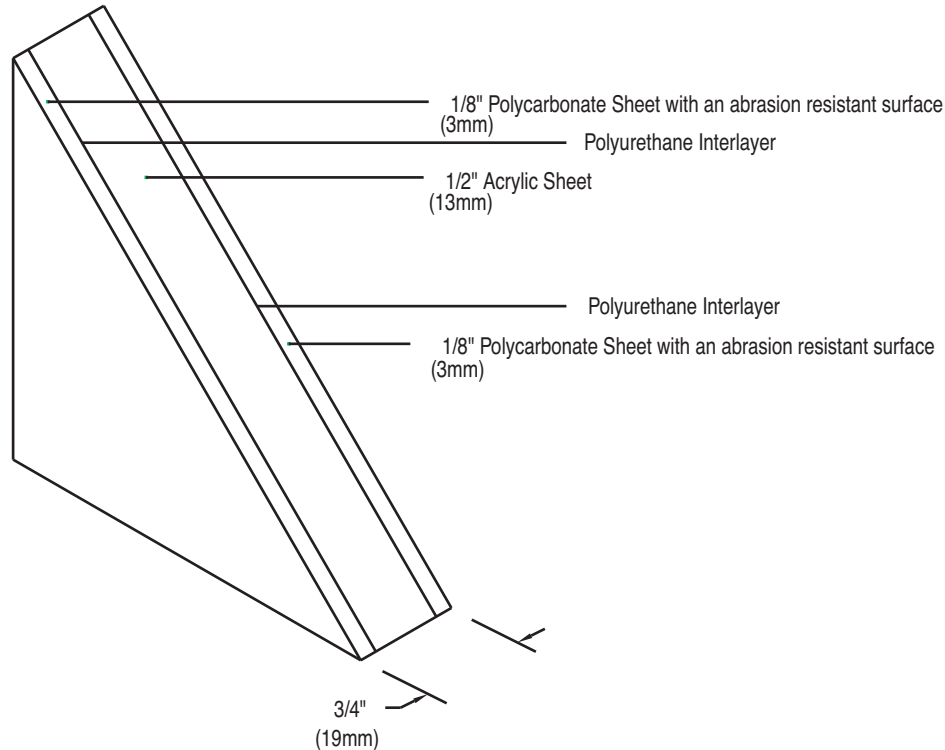# MP-750
LEXGARD® LAMINATE
3/4" (19mm)

BULLET-RESISTANT and FORCED ENTRY
SECURITY GLAZING

A product of Lexgard Laminates, LLC

DETAIL DRAWING

1/8" Polycarbonate Sheet with an abrasion resistant surface (3mm)

Polyurethane Interlayer

1/2" Acrylic Sheet (13mm)

Polyurethane Interlayer

1/8" Polycarbonate Sheet with an abrasion resistant surface (3mm)

3/4" (19mm)

±8% Tolerance

STANDARD PRODUCT FEATURES

- Lexgard MP-750 laminate is a three-ply polycarbonate and acrylic laminate primarily developed for security protection. Lexgard MP-750 laminate with an abrasion resistant surface, combines dependable ballistics protection and exceptional abrasion resistance.
- Weight: 4.6 lbs. per sq.ft. (2.086 Kg per 0.093 m²)
- Shading Coefficient (calculated): 1.04 clear
- U-Factor: .71
- % Light Transmission: 87 clear (Average Gardner Value)
- Available Colors: Clear, Bronze, Gray
- Virtually Unbreakable
- CLEANING INSTRUCTIONS: Please see Cleaning Instructions for LEXAN, page 22, this section.
- Conforms with ICBO, BOCA and SBCC1 model building codes as an approved light transmitting plastic with a C2 (CC-2) flammability performance level.

® LEXGARD is a Registered Trademark of Lexgard Laminates, LLC

BALLISTICS and FORCED ENTRY RATINGS

- Complies with the requirement of H.P. White-TP-0500.00 for: Level B - Ballistic material (9mm) handgun; Level I - Forced-entry material.
- Complies with the requirements of ASTM F1233-93 for .38 super bullet resistance protection.
- Recognized by Underwriters Laboratories as providing Level 1 (9mm) Small Arms handgun protection per UL Standard 752.
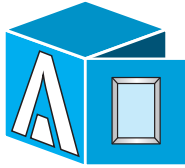
GLAZING INFORMATION

- Structural security metal framing is suggested and where applicable rated to the appropriate bullet resistant level. A minimum edge engagement of one (1) inch (25mm) is recommended with allowances for material expansion. (Larger lites may require deeper engagements.) The use of compatible sealant or gasket material is recommended, with flexible material on both sides of the laminate. Do not use PVC gasket material. Do not use setting blocks made from PVC, EPDM, or neoprene rubber materials. Santoprene rubber should be suggested. If these other rubber products are required, a protective barrier material should be used between the rubber setting block and the LEXGARD® sheet edge.

* Santoprene is a registered trademark of Exxon Mobil Corporation

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Job Name & Location	Submitted by

TECHNICAL DATA

FROM

Anemostat

D o o r   P r o d u c t s

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
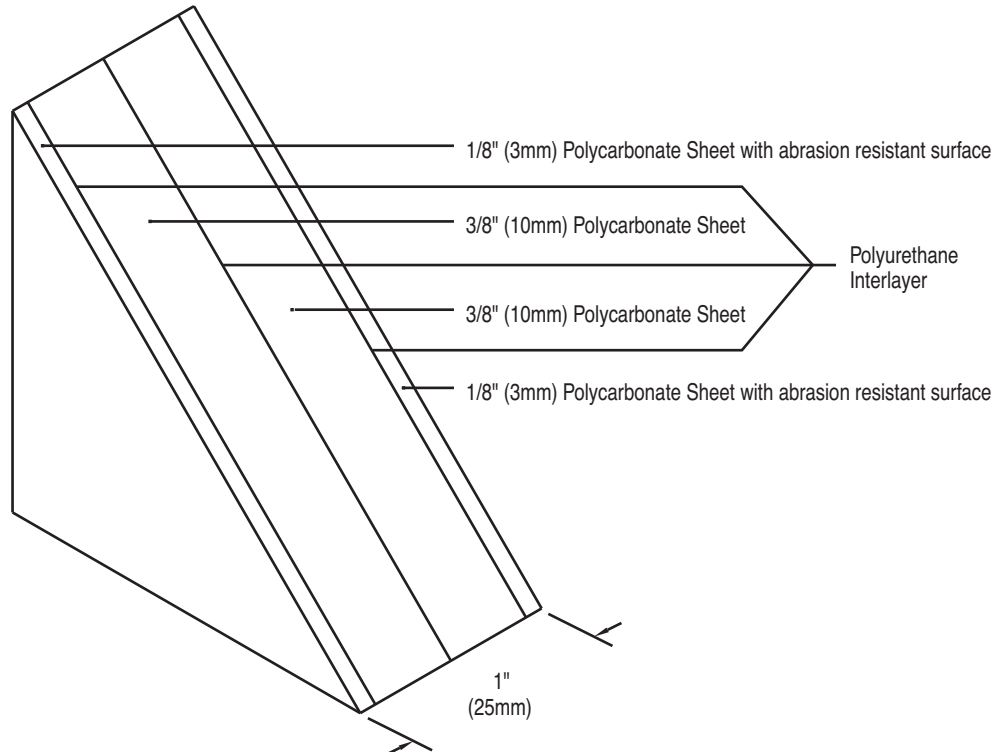**e–mail: door@anemostat.com • website: www.anemostat.com**

MP-1000
LEXGARD® LAMINATE
1" (25mm)

BULLET-RESISTANT and FORCED
ENTRY
SECURITY GLAZING

A product of Lexgard Laminates, LLC

DETAIL DRAWING

1/8" (3mm) Polycarbonate Sheet with abrasion resistant surface

3/8" (10mm) Polycarbonate Sheet

Polyurethane Interlayer

3/8" (10mm) Polycarbonate Sheet

1/8" (3mm) Polycarbonate Sheet with abrasion resistant surface

1"
(25mm)

±5% Tolerance

STANDARD PRODUCT FEATURES

- Lexgard MP-1000 laminate is a four-ply polycarbonate laminate primarily developed for Security protection. Lexgard MP-1000 laminate with an abrasion resistant surface combines dependable protection and exceptional abrasion resistance.
- Weight: 6.4 lbs. per sq.ft. (2.903 Kg per 0.093 m²)
- Shading Coefficient (calculated): .93 clear
- U-Factor: .62
- % Light Transmission: 72 clear (Average Gardner Value)
- Available Colors: Clear, Bronze, Gray
- Virtually Unbreakable
- CLEANING INSTRUCTIONS: Please see Cleaning Instructions for LEXAN, page 22, this section.

® LEXGARD is a Registered Trademark of Lexgard Laminates, LLC

BALLISTICS and FORCED ENTRY RATINGS

- Complies with the requirement of H.P. White-TP-0500.00 for: Level B - Ballistic material (9 mm) handgun; Level V (step 42) - Forced-entry material.
- Complies with ASTM F1233-08 .38 super, bullet resistant protection Class V (step 41) - Forced-Entry Protection. Contraband Class II (Step 11)
- Recognized by Underwriters Laboratories as providing Level 2 (.357 Magnum) handgun protection per UL Standard 752.
- Conforms with ICBO, BOCA and SBCC1 model building codes as an approved light transmitting plastic with a C1 (CC-1) flammability performance level.

GLAZING INFORMATION

- Structural security metal framing is suggested and where applicable rated to the appropriate bullet resistant level. A minimum edge engagement of one (1) inch (25mm) is recommended with allowances for material expansion. (Larger lites may require deeper engagements.) The use of compatible sealant or gasket material is recommended, with flexible material on both sides of the laminate. Do not use PVC gasket material. Do not use setting blocks made from PVC, EPDM, or neoprene rubber materials. Santoprene rubber should be suggested. If these other rubber products are required, a protective barrier material should be used between the rubber setting block and the LEXGARD® sheet edge.
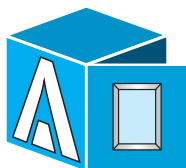
* Santoprene is a registered trademark of Exxon Mobil Corporation

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Job Name & Location	Submitted by

MARCH 2012

TECHNICAL DATA
FROM
Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
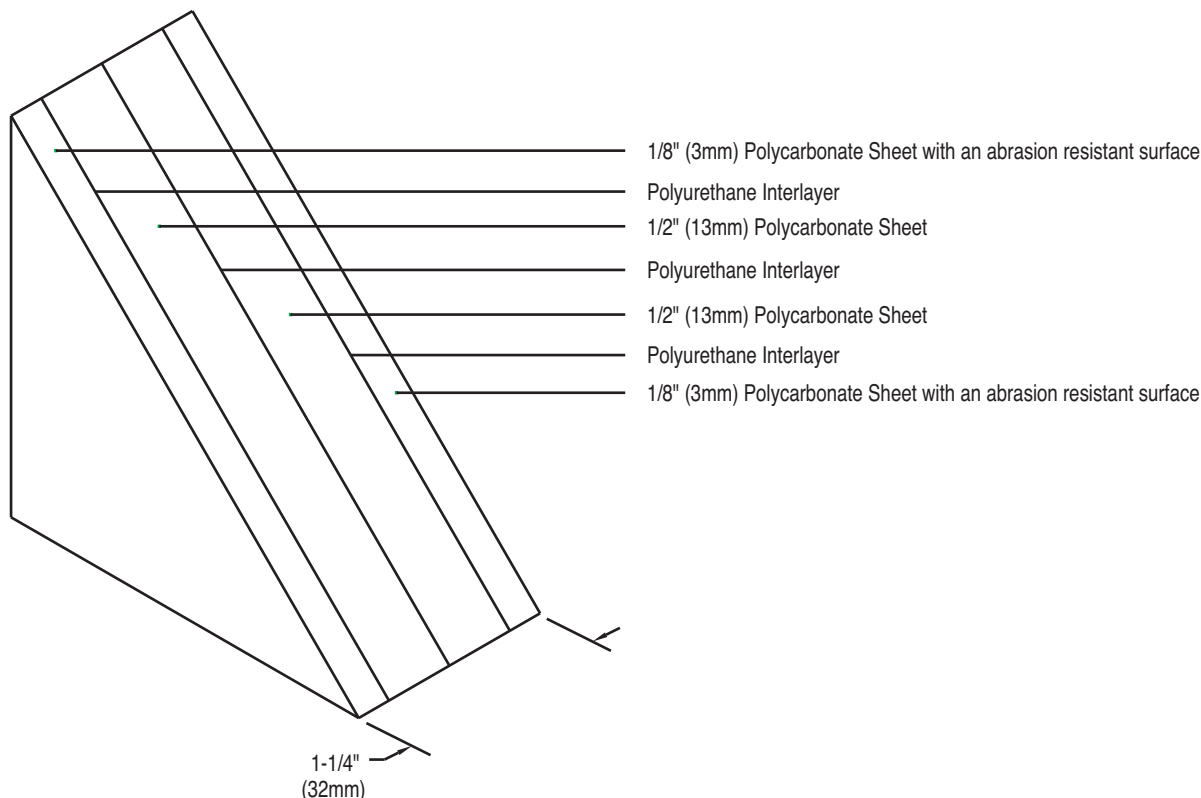**e-mail: door@anemostat.com • website: www.anemostat.com**

SP-1250
LEXGARD® LAMINATE
1-1/4" (32mm)

BULLET-RESISTANT and FORCED ENTRY SECURITY GLAZING

A product of Lexgard Laminates, LLC

DETAIL DRAWING

1/8" (3mm) Polycarbonate Sheet with an abrasion resistant surface

Polyurethane Interlayer

1/2" (13mm) Polycarbonate Sheet

Polyurethane Interlayer

1/2" (13mm) Polycarbonate Sheet

Polyurethane Interlayer

1/8" (3mm) Polycarbonate Sheet with an abrasion resistant surface

1-1/4"
(32mm)

±5% Tolerance

STANDARD PRODUCT FEATURES

- Lexgard SP-1250 laminate is a four-ply polycarbonate laminate primarily developed for Security protection. Lexgard SP-1250 laminate with an abrasion resistant surface combines dependable protection and exceptional abrasion resistance.
- Weight: 7.7 lbs. per sq.ft. (3.493 Kg per 0.093 m²)
- Shading Coefficient (calculated): .90 clear
- U-Factor: .56
- % Light Transmission: 67 clear (Average Gardner Value)
- Available Colors: Clear, Bronze, Gray
- Virtually Unbreakable
- CLEANING INSTRUCTIONS: Please see Cleaning Instructions for LEXAN, page 22, this section.

® LEXGARD is a Registered Trademark of Lexgard Laminates, LLC

BALLISTIC and FORCED ENTRY RATINGS

- Complies with the requirement of H.P. White-TP-0500.00 for:
  Level C - Ballistic material (.44 Magnum) handgun;
  Level V (step 54) - Forced-entry material.
- Complies with ASTM F1233-08 (.44 Magnum) bullet resisting protection Class V (step 41) - Forced-Entry Protection. Contraband Class III (step 20)
- Recognized by Underwriters Laboratories as providing Level 3 (.44 Magnum) handgun protection per UL Standard 752.
- Conforms with ICBO, BOCA and SBCC1 model building codes as an approved light transmitting plastic with a C1 (CC-1) flammability performance level.

GLAZING INFORMATION

- Structural security metal framing is suggested and where applicable rated to the appropriate bullet resistant level. A minimum edge engagement of one (1) inch (25mm) is recommended with allowances for material expansion. (Larger lites may require deeper engagements.) The use of compatible sealant or gasket material is recommended, with flexible material on both sides of the laminate. Do not use PVC gasket material. Do not use setting blocks made from PVC, EPDM, or neoprene rubber materials. Santoprene rubber should be suggested. If these other rubber products are required, a protective barrier material should be used between the rubber setting block and the LEXGARD® sheet edge.
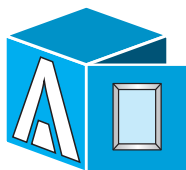
* Santoprene is a registered trademark of Exxon Mobil Corporation

Job Name & Location	Submitted by

TECHNICAL DATA
FROM

Anemostat
Door Products

4958 Stout Dr. #119, San Antonio, TX 78219
PH: 210.662.6300 • FAX: 210.662.2828
e-mail: door@anemostat.com • website: www.anemostat.com

CLEANING INSTRUCTIONS FOR
LEXAN®
LEXGARD LAMINATES

DETAIL DRAWING

Cleaning Instructions

When LEXAN sheet is first installed, glazing compound and masking paper adhesives can be easily removed by applying naphtha (VM&P) or kerosene with a soft cloth, followed immediately with a thorough soap and water cleaning. DO NOT USE GASOLINE. Adherence to regular and proper cleaning procedures is recommended to preserve appearance.

LEXAN and LEXGARD Sheet Cleaning Instructions

Because of this material's highly mar- and UV-resistant coating, avoid the use of abrasive cleaners and/or cleaning implements that may mar or gouge the coating.

Graffiti Removal for LEXAN MR10 Sheet
- Butyl cellosolve works well for the removal of paints, marking pen inks, lipstick, etc.
- Masking tape, adhesive tape or lint removal tools work well for lifting off old, weathered paints.
- To remove labels, stickers, etc., the use of kerosene or VM&P naphtha is generally effective. When the solvent will not penetrate sticker material, apply heat (hair dryer) to soften the adhesive and promote removal. GASOLINE SHOULD NOT BE USED.

Job Site Precautions
New construction and renovations frequently require that the glazing and surrounding sash and wall finish be cleaned of any excess mortar, paint, sealant, primers or other construction compounds. Only recommended cleaners should be used to clean LEXAN sheet. Contact with harsh solvents such as methyl ethyl ketone (MEK) or muriatic acid can result in surface degradation and possible crazing of LEXAN sheet.

Washing to Minimize Scratching

Wash LEXAN sheet and LEXGARD® laminates with a mild soap or detergent (e.g., Formula 409[1] Household Cleaner) and lukewarm water, using a clean sponge or a soft cloth. Rinse well with clean water. Dry thoroughly with a chamois or moist cellulose sponge to prevent water spots.

Fresh paint splashes, grease and smeared glazing compounds can be removed easily before drying by rubbing lightly with a good grade of VM&P naphtha, isopropyl alcohol or butyl cellosolve (2-butoxy ethanol). Do not use butyl cellosolve in direct sunlight.

Afterward, a warm final wash should be made, using a mild soap or detergent solution and ending with a thorough rinsing with clean water.

Minimizing Hairline Scratches

Scratches and minor abrasions can be minimized by using a mild automobile polish. Three such products that tend to polish and fill scratches are Johnson Paste Wax, Novus Plastic Polish #1 and #2, Novus Inc., Minneapolis, MN, Mirror Glaze plastic polish (M.G.M10), Mirror Bright Polish Co., Pasadena, CA. It is suggested that a test be made on a sample of LEXAN sheet with the product selected and that the polish manufacturer's instructions be followed.

The following cleaning agents have been deemed compatible with LEXAN sheet and LEXGARD laminates. The manufacturer's recommendations and instructions should be followed.

- Formula409 [1]
- Freon T.F.
- Joy [2]
- Palmolive Liquid [3]
- Top Job [2]
- VM&P grade naphtha
- Windex with Ammonia D [4]

[1] Registered Trademark of Texize, Division of Norton Norwich Products, Inc.
[2] Registered Trademark of Procter & Gamble.
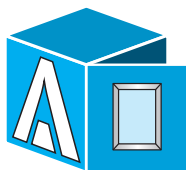[3] Registered Trademark of Colgate Palmolive.
[4] Registered Trademark of the Drackett Products Company.

Some important "Don'ts"

- DO NOT use abrasive or highly alkaline cleaners on LEXAN sheet products.
- Never scrape LEXAN sheet products with squeegees, razor blades or other sharp instruments.
- Benzene, gasoline, acetone, or carbon tetrachloride should never be used on LEXAN sheet products.
- DO NOT clean LEXAN sheet products in hot sun or at elevated temperatures.

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® LEXGARD is a Registered Trademark of Lexgard Laminates, LLC

Anemostat
Door Products

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GLAZING TAPE
(1/32", 1/16", 1/8", 1/4")
CLOSED CELL FOAM SEALANT

FIRE RATINGS

UNDERWRITERS' LABORATORIES

WARNOCK HERSEY

EN-1634
European Standard

B.S.-476.22
British Standard

DETAIL DRAWING

3/8" WIDTH (9.5mm)

GT - 132
Adhesive two sides

1/32" THICKNESS
(.793mm) (0.0313")

GT - 116
Adhesive two sides

1/16" THICKNESS
(1.6mm) (0.0625")

GT - 18
Adhesive two sides

1/8" THICKNESS
(3.2mm) (0.125")

GT - 14
Adhesive two sides

1/4" THICKNESS
(6.4mm) (0.250")
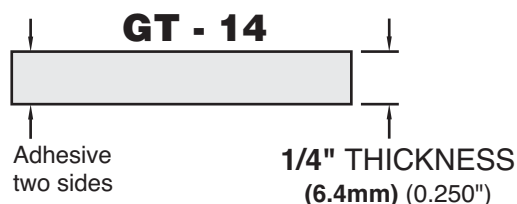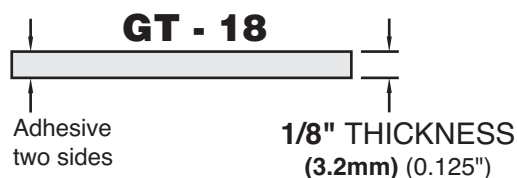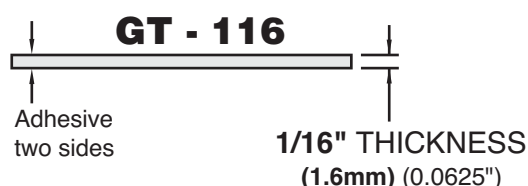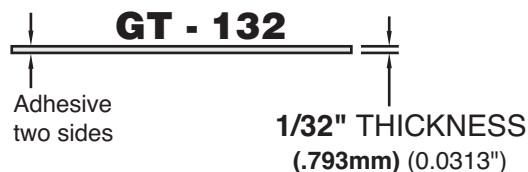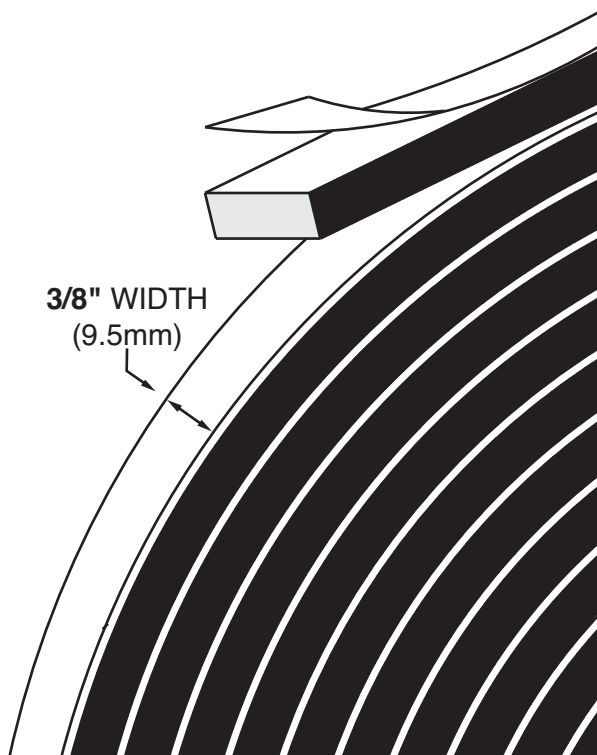
SIZES ARE NOT TO SCALE

STANDARD PRODUCT FEATURES

- **MATERIAL:** Closed Cell Polyvinyl Chloride Foam Tape with pressure sensitive adhesive on two sides, protected with a paper or polyethylene liner.

- **COLOR:** Black.

- **WIDTH:** 3/8" (10 mm) wide (all sizes).

- **INSTALLATION:** Peel off from roll and place exposed adhesive side directly on to clean surface of vision frame or glass to be glazed. Do not remove liner until sealant is in proper position.

- **USES:** Excellent for glazing joints with high movement. Exceeds the requirements of AAMA 810.1 specification.

- **NOTE:** Material should be stored at 70°F (21°C), 50% relative humidity. Minimum recommended application temperature is 45°F (7°C).

OPTIONAL FEATURES

- **THICKNESS:** 1/32" (0.0313") -3/8" width x 200 LFt (60.98 m) per roll.
  1/16" (0.0625") -3/8" width x 200 LFt (60.98 m) per roll.
  1/8" (0.125") -3/8" width x 100 LFt (30.49 m) per roll.
  1/4" (0.250") -3/8" width x 50 LFt (15.24 m) per roll.

FIRE RATINGS (w/ U.L. & W.H.I. classification markings) Positive Pressure

- **20/45/60/90/180 MINUTE:** When used in a fire rated door component assembly.

BS 476.22
British Standard
Timber Doors - 30 min.
Steel Doors - 1 hour.

EN-1634
European Std.
30/60 min. integrity and insulation - Indicative Testing

- **IMPORTANT:** Because Anemostat can not anticipate or control every potential application, we strongly recommend testing of this product under individual application conditions/use prior to use. The product contains plasticizer which may adversely affect some plastics.

Job Name & Location	Submitted by