



Glass Options

Fire Rated Glass Options

Insulated and Multi-Layered Glass Make-Up

Options for insulating the outboard lite with these fire rated glass products:

PYROSWISS®
KERALITE®
SWISSFLAM®
CONTRAFLAM®

- Hardcoat Low-E
- Softcoat Low-E
- Bronze / Gray Tint
- Evergreen (Low-E)
- Spandrel (black)
- Opacicoat (black)
- Matelux
- Solarban
- Decorative
- Acid Etched or Sand Blasted

Glass make-up options for multi-layered intumescent CONTRAFLAM products:

- **DIAMANT® (Low-Iron)**
- Decorative
- Spandrel
- Matelux
- Acid Etched or Sand Blasted
- Litefl am Glass Flooring Panels

We can insulate fire rated glass with a variety of glass products to customize your project. Nominal thickness of any insulated unit varies due to air space, outboard lite, unit size and application.

Decals, lettering and signage can be applied to the surface and will not affect the fire rating, glass performance or warranty.

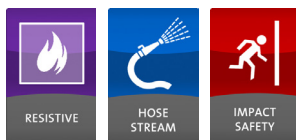


Applications	Classifications /Technology	Multi-Functional	Safety	Glass and Framing	Resources
facades	fire protective	U-value	fire	Pyroswiss	product selector
partition walls	temperature rise	impact	Keralite	distributors	regional representatives
curtain walls	fire resistant	solar control	Keralite Ultra	Aluflam	project gallery
fire doors	hose stream	UV-stability	bullet resistance	Contraflam	quick quote form
fire windows	impact safety	decorative functions	blast resistance	Contraflam Structure	AIA / CE Course
butt-joint solutions	tempered glass	energy efficiency	hurricane resistance	Keralite Select	e-newsletter
glass floors	safety glass	low-e	forced entry	VDS framing system	press and media
interlayer glass	ceramic glass	detention	VDS curtain wall	VDS doors	continuing education
vision control and privacy	framing system	sustainability	hollow metal	VDS partition wall	LEED information
acoustic performance	laminated glass	ballistic		Vetrotech HI	Events & Tradeshow
sidelites	insulated glass unit (IGU)				partners
borrowed lites	epd			Specification Tools	Terms and Conditions
transoms				BIM 3D models	terms of sale
integral blinds				CAD drawings	CATSCA
				CSI specifications	SGNA Business Terms
				UL listings	

Fire Rated Clear Tempered Safety Glass

AT ROOM 413 WINDOW

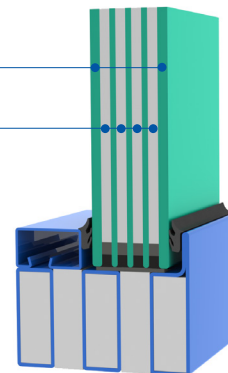
CLASSIFICATION



PRODUCT FEATURES

Clear tempered safety glass DIAMANT®

Intumescent interlayers



Shown installed in
VDS 120 Frame

TECHNICAL SPECIFICATIONS

Fire Resistive	120 Minutes
US Testing / Compliant	Tested in accordance with ASTM E 119, UL 263
CAN Testing / Compliant	CAN/ULC- S101
Impact Safety Rating	CPSC 16C Part 1201 (CATEGORIES I & II)
Nominal Thickness	1-9/16" (39 mm)
Thickness Tolerance	+1/8" to -1/16"
U value (BTU/hr*sqft/°F)	0.33
STC Rating	46
Weight (lbs/sq.ft.)	15.8
Visible Light Transmission	≈ 84%

AUTHORIZED DIMENSIONS

Rating	Application	Max Exposed Area of Glass (Sq In.)	Max Width of Exposed Glass	Max Height of Exposed Glass	Min Depth of Groove	Groove Width	Building Code Marking ¹	UL Design Numbers ¹
2 hr	Window Transom Sidelite	4435	94-5/8"	94-5/8"	13/16"	1-3/4"	W-120 OH-120	U439, U543 U547, U548

¹ See Reference Page

PRODUCT TERMS AND CONDITIONS

CONTRAFLAM® / SWISSFLAM® / CONTRAFLAM® STRUCTURE / KERALITE®-ULTRA

1. General: This document applies to CONTRAFLAM®, SWISSFLAM®, CONTRAFLAM® STRUCTURE, KERALITE®-ULTRA of all types and fire ratings including their combination in insulated glass units. When fire-resistant glass is used, it is assumed that the buyer will incorporate abovementioned glass into glazing systems approved by a valid and independent institution, e.g. UL/Underwriters Laboratories. Copies of authorized listing and specifications, as well as instructions for handling and installation are available online at vetrotechusa.com, or by calling 1-888-803-9533.

2. Limited 5 Year Warranty: Vetrotech Saint-Gobain warrants that its CONTRAFLAM®, SWISSFLAM®, CONTRAFLAM® STRUCTURE, KERALITE®-ULTRA fire rated glazing to be free of substantial obstruction of vision from dust or other foreign substances due to defective materials or workmanship for a period of five years from the date of shipment. When assembled to an Insulated Glass Unit (IGU), Vetrotech warrants only that its CONTRAFLAM®-IGU, SWISSFLAM®-IGU, CONTRAFLAM® STRUCTURE-IGU, KERALITE®-ULTRA-IGU will be free of substantial obstruction of vision from dust, film formation or moisture accumulation between glass lites resulting from seal failure due to defective materials or workmanship for a period of ten years from the date of shipment.

CONTRAFLAM®, SWISSFLAM®, CONTRAFLAM® STRUCTURE, KERALITE®-ULTRA is an engineered specialty fire resistant glazing material. Certain optical and visual faults are inherent to the production process. These characteristics may be evaluated according to the manufacturer's quality standards, but do not impair the transparency or affect the performance of the glass in case of fire, and shall not be considered cause for rejection.

This warranty shall not apply if the failure is caused by acts of God, intervening cause, mishandling, misuse, abuse, improper installation, installation by unqualified glaziers or by any other cause whatsoever not within our exclusive control, and shall not apply unless the failure occurs within five or ten years after the date of shipment. The obligation of this warranty is to replace the defective glass, F.O.B. manufacturer's warehouse, but in no event shall Vetrotech Saint-Gobain be responsible to cover any cost of removal, installation or reinstallation, loss of use, incidentals or any consequential cost associated with defective product. Any glass replaced under this warranty is limited to the original warranty period and shall not be extended beyond the original five or ten years.

Vetrotech Saint-Gobain makes no warranty of merchantability nor that the product is fit for any particular purpose for use and no other warranty than the abovementioned warranty of any kind, expressed or implied.

3. Transportation and Storage Conditions: Transport and storage of CONTRAFLAM®, SWISSFLAM®, CONTRAFLAM® STRUCTURE, KERALITE®-ULTRA products must be in a vertical and dry state and at temperatures above 14°F (-10°C) and below 113°F (45°C). Extreme climatic conditions and exposure to direct sunlight or other heat sources must be avoided. When glass is installed in a not temperature controlled building, above storage conditions apply likewise.

4. Handling and Installation Requirements: The product warranty is subject to CONTRAFLAM®, SWISSFLAM®, CONTRAFLAM® STRUCTURE, KERALITE®-ULTRA glass having been handled and installed in accordance with published instructions. It is essential that glazing contractors or other handlers or installers be familiar with such instructions. All subsequent product processing, additions or alterations not authorized and monitored by Vetrotech Saint-Gobain are specifically prohibited. If the products are used in fire-rated applications not covered by Vetrotech Saint-Gobain product specifications, all warranty is null and void.

All notes and instructions on labels must be respected. If adhesives or sealing materials are applied during installation, compatibility must be verified and confirmed with Vetrotech Saint-Gobain beforehand or all warranty is null and void.

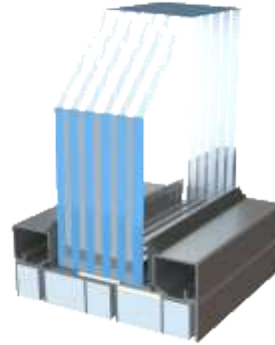
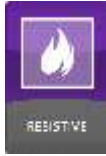
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CONTRAFLAM® Structure 120 Diamant

Fire-Rated Clear Tempered Safety Glass for Interior Wall Application

CLASSIFICATION

PRODUCT FEATURES



TECHNICAL SPECIFICATION

Fire Rating	120 min. Fire-Resistance-Rated		
Testing / Standard Conformity	UL 263	NFPA 251	ASTM E 119/CAN/ULC-S101
Building Code Marking	W-120, OH-120		
Impact Safety Rating	CPSC 16CFR 1201-CAT II; CAN/CGSB-12.1-M		
Nominal Thickness (in; mm)	2-1/16" (52mm)		
Tolerance (in; mm)	+ 1/8" to - 1/16" (+3 mm to -1.5 mm)		
U-Value (BTU/hr*sq ft*°F)	0.62		
STC Rating (dB)	46		
Visible Light Transmission (%)	80		
Weight (lbs/ft²; kg/m²)	22.5 (110.0)		
Groove (in; mm)	Depth: 7/8" (22mm)		Width: 2-5/16" (59mm)

MAXIMUM DIMENSIONS

	Window, Transom Sidelight	Door Non-Temp Rise	Door Temp Rise
Maximum Exposed Height (in; m)*	126	N/A	N/A
Maximum Exposed Width (in; m)*	126 (3.20)	N/A	N/A
Maximum Exposed Area (in²; m²)	4,536 (2.93)	N/A	N/A

*Height multiplied by width cannot exceed maximum exposed area.

APPLICATION OPTIONS

- | | | |
|--|---|--|
| ☐ VDS Door | ☐ VDS Lite Door | ☐ Hollow Metal Temp Rise Door |
| ☒ VDS Frame | ☐ VDS Lite Frame | ☐ Hollow Metal Non-Temp Rise Door |
| ☒ VDS Curtain Wall | | ☐ Hollow Metal Frame |

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(10/15/2014)

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CERTIFICATE OF COMPLIANCE

Certificate Number 20121005-R22066

Report Reference R22066

Issue Date 2012 October 05

Issued to: Vetrotech Saint-Gobain North America Inc.
Suite 110
2108 B St NW
Auburn, WA 98001

This is to certify that representative samples of Fire-resistance-rated Glazing Materials

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: ANSI/UL 263, "Fire Tests of Building Construction and Materials."-
Edition 14 – Issue Date 2011/06/21

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Classification Mark should be considered as being covered by UL's Classification and Follow-Up Service.

The UL Classification Mark includes: UL in a circle; with the word "CLASSIFIED"  (as shown); a control number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of the product; and the product category name (product identity) as indicated in the appropriate UL Directory.

Look for the UL Classification Mark on the product.

Types Contraflam 60, Swissflam 60, nom 27 mm thick panels in Design Nos. U439, U542, U543, U547 and U548.

Type Contraflam 60-3, nom 27 mm thick panels in Design No. U439.

Types Contraflam ULTIMAX 60, Swissflam ULTIMAX 60, nom 30mm thick panels in Design Nos. U439, U543, U555 and U556.

Type Swissflam Structure 60, nom 31 mm thick panels in Design Nos. U439, U542, U543 and U544.

Type Swissflam Structure ULTIMAX 60, nom 33.5mm thick panels in Design Nos. U439, U543, U555 and U556.

Type Contraflam Structure 60, nom 31 mm thick panels in Design Nos. U439, U542, U543, U544, U547 and U548.

Type Contraflam Structure ULTIMAX 60, nom 36mm thick panels in Design Nos. U439, U543, U555 and U556.

William R. Carney, Director, North American Certification Programs
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at www.ul.com/contactus



CERTIFICATE OF COMPLIANCE

Certificate Number 20121005-R22066
Report Reference R22066
Issue Date 2012 October 05

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Type **Contraflam 120**, Swissflam 120, nom 39 mm thick panels in Design Nos. U439, U543, U547 and U548.

Type Contraflam 90-4, nom 40 mm thick panels in Design No. U439.

Types Contraflam ULTIMAX 120, Swissflam ULTIMAX 120, nom 44 mm thick panels in Design Nos. U439, U543, U555 and U556.

Type **Contraflam Structure 120**, nom 52 mm thick panels in Design Nos. U439, U543 and U549.

Type Contraflam Structure ULTIMAX 120, nom 57mm thick panels in Design Nos. U439, U543 and U549.

Types Contraflam 120, Swissflam 120, nom 58 mm thick panels in Design Nos. U543, U547 and U548.

Type Contraflam 120-6, nom 60 mm thick panels in Design No. U439.

Types Contraflam 180, Swissflam 180, nom 98 mm thick panels in Design No. U546.

William R. Carney, Director, North American Certification Programs
UL LLC

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ENAMEL PAINT COLORS

Standard Color Chart

Vetrotech Saint-Gobain is able to paint our fire-rated door and frame systems in house. Displayed are sixteen of the most widely requested colors, but are only a sampling of the many colors we can achieve.



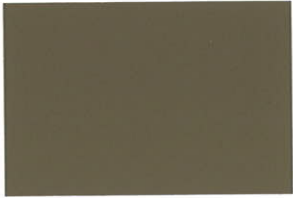
Linear White
F63 W 12



Bone White
F63TXW17019



Practical Beige
F63RXH20808



Instrument Tan
F63RXH18730



Dove Gray
F63RXA19971



Profile Gray
F63TXA12495



Medium Bronze
F63RXN21437



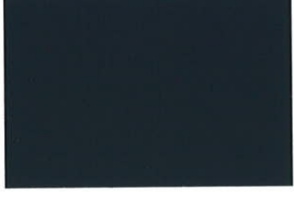
Dark Bronze
F63TXS12483



Nitro Blue
F63RXL19894



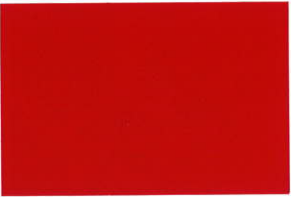
Dignety Blue
F63RXL20809



Charcoal Gray
F63RXB21424



Hartford Green
F63RXG22625



Banner Red
F63TXR17020



Carbide Black
F63 B 12



Metallic Bronze
F63RXS22586



Clear Anodized
F63TXS11414

CERTIFICATE OF COMPLIANCE

Certificate Number 20120206-R21527

Report Reference R21527-20111207

Issue Date 2012-FEBRUARY-06

Issued to: VETROTECH SAINT-GOBAIN NORTH AMERICA INC
SUITE 110
2108 B ST NW
AUBURN, WA 98001 USA

This is to certify that representative samples of Framing Members
VDS 60, **VDS 120**, VDS Curtain Wall

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 263, Fire Tests of Building Construction and Materials
ULC-S101, Standard Methods of Fire Endurance Tests of Building Construction and Materials

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Classification Mark for the U.S. and Canada should be considered as being covered by UL's Classification and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

The UL Classification Mark includes: the UL in a circle symbol:  with the word "CLASSIFIED" (as shown); a control number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of the product; and the product category name (product identity) as indicated in the appropriate UL Directory. The UL Classification Mark for Canada includes: the UL Classification Mark for Canada:  with the word "CLASSIFIED" (as shown); a control number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of the product; and the product category name (product identity) in English, French, or English/French as indicated in the appropriate UL Directory.

Look for the UL Classification Mark on the product.

William R. Carney, Director, North American Certification Programs

UL LLC

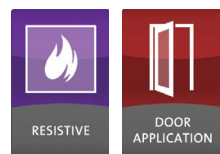
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VDS® 120 by FORSTER®

Fire-Rated Framing System

CLASSIFICATION



PRODUCT DESCRIPTION

120 minute fire-rated wall assembly with narrow profiles providing open vision areas allowing natural daylight without compromising life safety and design flexibility. This fully-insulated system can be complemented with 90 minute rated VDS by Forster doors where requested.

TECHNICAL SPECIFICATIONS

US Testing	ASTM E119, UL 263
Canadian Testing	CAN/ULC-S101
Finish Options	Powder Coat/Enamel (Custom colors available. Surcharges may apply.)
Fabrication	Welded
Certification	Underwriters Laboratories
Fabricated in the US	Yes
Glazing Options	Contraflam 120, Contraflam Structure 120
Single/Double Doors	Yes (see VDS Doors by Forster)
Weight (lbs/lin. ft.)	5 (does not include glass)

DETAILS

Rev. 1.1.16 The information published in this document is correct at the time of going to press. Such information may be subject to change and products may be modified.