

SCHOTT Pyran® Star F Fire-Rated Glass-Ceramic

Description

PYRAN® Star F is a fire-rated and impact safety-rated glazing material made from a transparent glass-ceramic with a thickness of 3/16". It has a surface applied 3M Scotchshield* Ultra Film and is intended for use in safety-rated locations such as door lites, transoms or sidelites, and windows with fire-rating requirements up to 90 minutes.

Features

- Fire-rated up to 90 minutes with required hose stream test
- Glass-ceramic with surface applied 3M Scotchshield* Ultra Film
- Transparent and wireless
- Withstands thermal shock
- Suited for use with standard fire-rated frames with the same rating
- Conforms to positive pressure test standards

General Characteristics

- Thickness: 3/16" (5mm)
- Weight: 2.5 lbs/ft²
- Approximate visible light transmission: 85%
- Surface finish: Standard with a slight texture
- Maximum sheet sizes: Approximately 43" x 77"
- Impact rating: ANSI Z97.1 and CPSC 16CFR1201 (Cat. I and II)

Listings

Rating	Application	Max. exposed area of glazing (in ²)	Max. width of exposed glazing (in)	Max. height of exposed glazing (in)	Min. depth of groove (in)
up to 90 min.	Doors temp rise	100	12	33	5/8
up to 90 min.	Doors non-temp rise	2,736 (19.00 ft ²)	36	76	5/8
up to 90 min.	Other than doors	3,202 (22.24 ft ²)	76	76	5/8

Classified and labeled by Underwriters Laboratories, Inc. for the United States and Canada with File-No. R22036. All fire tests performed in accordance with UL 9, UL 10B, UL10C, UBC 7-2 (1997), UBC 7-4 (1997), NFPA 252, NFPA 257, NFPA 80, ASTM E2010-01, ASTM E2074-00, ULC CAN4-S104, and ULC CAN4-S106.

Note: This product is not considered a barrier to radiant heat and has not met the ASTM E-119 or UL 263 test standards.

All listing information is subject to change. The current rating can be accessed in the UL directory under file #R22036 or upon request from SCHOTT.

*3M Scotchshield is a trademark of the 3M Corporation



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Labeling

After cutting, each lite of PYRAN® Star F fire-protective glass shall be permanently labeled according to code requirements with product and manufacturer's name, UL Mark, fire rating, etc.

Storage & Handling

PYRAN® Star F fire-protective glass should be handled with care during transportation, storage, inspection, and installation. It should be stored in dry conditions only and needs to be stacked upright or at a slight angle. In addition, the panels must be separated by an appropriate material, such as acid-free tissue paper, and the bottom edge must be supported along its entire length.

Installation

PYRAN® Star F shall only be installed into fire-rated frame and window assemblies carrying the same rating. Each panel should be inspected carefully before installation, and any pieces with visible edge or surface damage should be sorted out. All glazing components and the stop height must be chosen according to the PYRAN® Star F UL classification. The panel must be placed on calcium silicate or hardwood setting blocks and glazed using PYRAN® Star F classified glazing tape, such as closed cell PVC, Fiberfrax tape or Pemko FG3000S90. The installation of the framed unit must comply with the frame supplier's instructions.

PYRAN® Star F is a specially developed glass-ceramic, that fulfills the fire-protective rating requirements. The production process may create certain optical imperfections, such as bubbles or knots. Since these do not generally impair the transparency or the technical performance of the glass-ceramic, they do not represent cause for rejection or replacement.

Maintenance and Care

To maintain the aesthetics, it is important to keep the panel clean. A soft, clean, non-abrasive cloth and a mild soap, detergent, or non-abrasive window cleaning solution is suitable for cleaning. After cleaning rinse immediately with clean water and remove any excess water from the panel surface. Also, do not allow any metal or hard parts of the cleaning equipment to come in contact with the panel surface.



Notes

Failure to comply with any of the Labeling, Storage & Handling, Installation, and/or Maintenance & Care guidelines may result in a loss of warranty.

A complete three-part CSI format specification list and product warranty information are both available at www.us.schott.com/pyran or by calling (502) 657-4417.

For more information please contact:

SCHOTT North America, Inc.
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Louisville, KY 40228

Phone: (502) 657-4417
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www.us.schott.com/pyran

SCHOTT
glass made of ideas

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Specifications

Section 08 81 00 according to CSI MasterFormat 2004
Fire-rated Glass: SCHOTT Pyran® Star F

Part 1 – General

1.1 Summary

- A. Section Includes:
 - 1. Fire-rated glazing materials intended for use in [door lights] [transoms] [sidelights] [windows] in fire-rated frames.
- B. Related Sections:
 - 1. Section 08 11 00 – Metal Doors and Frames.
 - 2. Section 08 12 00 – Metal Frames.
 - 3. Section 08 13 00 – Metal Doors.
 - 4. Section 08 14 00 – Wood Doors.
 - 5. Section 08 51 00 – Metal Windows.
 - 6. Section 08 52 00 – Wood Windows.

1.2 References

- A. UL 9 – Fire Tests of Window Assemblies.
- B. UL 10B – Fire Tests of Door Assemblies.
- C. UL 10C – Positive Pressure Fire Tests of Door Assemblies.
- D. UBC 7-2 (1997) – Positive Pressure Standard.
- E. UBC 7-4 (1997) – Fire Test of Window Assemblies.
- F. NFPA 80 – Fire Doors and Windows.
- G. NFPA 252 – Fire Tests of Door Assemblies.
- H. NFPA 257 – Fire Tests of Window Assemblies.
- I. ASTM E2010-01 – Standard Test Method for Positive Pressure Fire Tests of Window Assemblies.
- J. ASTM E2074-00 – Standard Test Method for Positive Pressure Fire Tests of Door Assemblies.
- K. ULC CAN4-S104 – Fire Tests of Door Assemblies.
- L. ULC CAN4-S106 – Fire Tests of Window Assemblies.

1.3 Performance Requirements

- A. Fire-rated glass-ceramic, clear and wireless, with a surface-applied film, for use in door lights, transoms or sidelights and windows with fire rating requirements from 20 minutes to 90 minutes with hose stream test in impact safety-rated locations.
- B. Conforms to positive pressure test standards.

1.4 Submittals

- A. Comply with requirements of Section 01 30 00.
- B. Product data: Submit manufacturer's technical data for each glazing material required, including installation and maintenance instructions.

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- C. Certificates of compliance from glass and glazing material fabricators attesting that glass and glazing materials furnished for project comply with requirements. Separate certification will not be required for glazing materials bearing manufacturers permanent label designating type of glass, fire rating and mark of recognized testing laboratory. Provided labels represent a quality control program involving a recognized certification agency or independent testing laboratory acceptable to authority having jurisdiction.
- D. Product test listings: From UL indicating fire-rated glass complies with requirements, based on comprehensive testing of current product.
- E. Samples: Submit, for verification purposes, a sample for each type of glass indicated.

1.5 Quality Assurance

- A. Glazing standards: GANA Glazing and Sealant Manuals.
- B. Fire-rated glass: Each lite shall bear a permanent, non-removable label of UL certifying it for use in tested and rated fire protective assemblies.

1.6 Delivery, Storage and Handling

- A. Deliver, store and handle materials under provision of Section 01 60 00.
- B. Deliver materials to specified destination in manufacturers or distributors packaging, undamaged, complete with installation instructions.
- C. Store off ground, under cover, protected from weather and construction activities.

1.7 Warranty

- A. Provide manufacturers limited warranty under provision of Section 01 70 00.

Part 2 – Products

2.1 Fire-Rated Glazing Materials

- A. Manufacturer: SCHOTT Pyran® Star F fire-rated glass as manufactured by SCHOTT JENAer GLAS GmbH, Jena/Germany and supplied by SCHOTT North America, Inc., Louisville, KY, Telephone 1.502.657.4417, Fax 1.502.966.4976.
- B. Properties:
 - 1. Thickness: 3/16" (5mm).
 - 2. Film: 3M Scotchshield Ultra Film.
 - 3. Weight: 2.5 lbs/ft²
 - 4. Approximate visible light transmission: 85%.
 - 5. Fire-rating: 20 minutes to 90 minutes with hose stream test.
 - 6. Impact safety rating: ANSI Z97.1 and CPSC 16CFR1201 (Cat. I and II).
 - 7. Surface finish: Standard with a slight texture.
- C. Maximum sheet sizes: Approximately 43" x 77".
- D. Labelling: Permanently label each lite of SCHOTT Pyran® Star F fire-rated glass with product and manufacturers name, UL mark, fire rating, etc. according to code requirements.
- E. Fire Rating: Fire rating tested and listed by UL for fire rating scheduled at opening locations on drawings, when tested in accordance with [UL 9, UL 10B and UL 10C] [UBC 7-2 and UBC 7-4] [NFPA 252 and NFPA 257] [ASTM E2010-01 and ASTM E2074-00] [ULC CAN4-S104 and ULC CAN4-S106].

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2.2 Glazing Compound

- A. Glazing tape: Closed cell polyvinyl chloride (PVC) foam, Pemko Manufacturing Company, Ref. FG3000S90 or Unifrax Corporation Fiberfrax Alumino-Silicate fiber glazing tape.
- B. Setting blocks: Calcium silicate or hardwood.
- C. Cleaners, primers and sealers: Type recommended by manufacturer of glass and gaskets.

2.3 Fabrication

- A. Fabricate glass and other glazing products in sizes required to glaze openings indicated for project, with edge and face clearances, edge and surface conditions, and bite complying with recommendations of product manufacturer and referenced glazing standard as required to comply with system performance requirements.

Part 3 – Execution

3.1 Examination

- A. Examine glass and framing, with glaziers present, for compliance with the following:
 - 1. Manufacturing and installation tolerances, including those for size, squareness, offsets at corners.
 - 2. Minimum required face or edge clearances.
 - 3. Observable edge damage or face imperfections.
- B. Do not proceed with glazing until unsatisfactory conditions have been corrected.
- C. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings that are not firmly bonded to substrates.

3.2 Installation (glazing)

- A. Comply with referenced GANA manuals and instructions of manufacturers of glass, glazing sealants and glazing compounds.
- B. Protect glass from edge damage during handling and installation. Inspect glass during installation and set aside pieces with edge damage that could affect the performance.
- C. Set units of glass in each series with uniformity of pattern, draw, bow and similar characteristics.
- D. Cut glazing tape to length and set against permanent stops, flush with sight lines to fit openings exactly, with stretch allowance during installation.
- E. Arrange two setting blocks located at quarter points of glass with edge block no more than 6 inches from corners.
- F. Glaze vertically into labelled fire-rated metal frames or partition walls with the same fire rating as the glass and push against tape for full contact at perimeter of pane or unit.
- G. Place glazing tape on free perimeter of glazing in same manner described above.
- H. Install removable stop and secure without displacing the tape.
- I. Install so that appropriate markings remain permanently visible.

3.3 Protection and cleaning

- A. Protect glass from contact with contaminating substances resulting from construction operations. Remove any such substances by methods approved by the glass manufacturer.
- B. Wash glass on both faces not more than four days prior to date scheduled for inspections intended to establish date of substantial completion. Wash glass by a method recommended by the glass manufacturer.

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3.4 Glazing schedule

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up to 90 min.	Doors temp rise	100	12	33	5/8
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End of Section.

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