

## FIRE-RATED, FORCED ENTRY AND BULLET RESISTANT TRANSPARENT WALL PANEL FOR SCHOOLS AND EDUCATION FACILITIES

Pilkington Pyrostop® laminated to School Guard Glass® is fire rated, offers a Level III bullet resistance rating and withstands forced entry attacks in standard fire doors and windows.

 **FIRE RATING**  
**UP TO 120 MINUTES**

### FEATURES

- Deters forced entry in Fireframes® doors and frames from TGP and compliant doors and frames for 12+ minutes
- Meets ASTM F1233 class 1.4 and H.P. White 5-aa1 for 12:10
- UL 752 bullet resistance ratings are available from Level 1 to Level 8 in different configuration make-ups
- Protection against radiant and conductive heat transfer
- Barrier to fire and smoke
- Impact safety-rated-meets ANSI Z97.1 and CPSC 16 CFR1201 (Cat. I and II)
- Wireless with nearly the same clarity as ordinary float glass
- For use in interior and exterior applications
- Available incorporating a variety of glass products, including (but not limited to): Tinted; One-Way Mirror; Low-E; Reflective; Art Glass; Translucent Interlayer (for added obscurity and privacy)
- Fits in Fireframes® Heat Barrier Series by TGP
- Available for use in compliant frames by others (see frame manufacturer for details)
- Multi-laminate, not a sensitive polymer unit

### LISTINGS / STANDARDS

Classified and labeled by Underwriters Laboratories, Inc.® and Underwriters Laboratories of Canada. File number for labeled fire-rated assemblies is R13377 (45 minutes) and R38725 (60-120 minutes). Tests performed in accordance with:

UL 9	NFPA 80	CAN/ULC-S101	ASTM E119	MEA 290-90-M-6	HPW 5-aa1
UL 10B	NFPA 251	CAN/ULC-S104	ASTM F1233	LARR 25798	
UL 10C	NFPA 252	CAN/ULC-S106			
UL 263	NFPA 257				
UL 752					
UL 972					

### LABELING

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

### STORAGE & HANDLING

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



BIM 3D Model



Fire-Rated



Hose Stream Tested



Heat Barrier



Positive Pressure Tested



Impacted Rated



Bullet Resistant



Forced Entry Resistant



UL Classified & Labeled



NORTH AMERICA'S  
**MOST SPECIFIED**  
FIRE-RATED GLASS COMPANY

## INSTALLATION

If either dimension exceeds 84" or if the unit exceeds 34 ft<sup>2</sup>, the Pilkington Pyrostop School Guard Glass thickness will increase by 1/8", thus increasing the unit thickness by 1/8".

Only Kerafix® is approved for use with Pilkington Pyrostop School Guard Glass.

## UL-752 BULLET RESISTANCE

UL-752 BULLET RESISTANCE RATING	FIRE RATING	PILKINGTON PYROSTOP DESIGNATION	SUPPLY FORM	NOMINAL THICKNESS	WEIGHT APPROX.	ASSEMBLY	MAX. EXPOSED AREA	MAX. WIDTH OF EXPOSED GLAZING	MAX. HEIGHT OF EXPOSED GLAZING
Level I	60 min.	60-201 (with film**)	Single Glazing	1-1/16" (27 mm)	12.90 lbs/ft <sup>2</sup> (63.00 kg/m <sup>2</sup> )	OTHER THAN DOORS DOOR	7,442 in <sup>2</sup> (4.80 m <sup>2</sup> ) 3,724 in <sup>2</sup> (2.40 m <sup>2</sup> )	96" (2.44 m) 41-5/8" (1.06 m)	118-1/8" (3.00 m) 89-3/4" (2.28 m)
Level II	120 min.	120-201^	I.G. Units	2-7/16" (62 mm)	25.81 lbs/ft <sup>2</sup> (126.00 kg/m <sup>2</sup> )	OTHER THAN DOORS	3,724 in <sup>2</sup> (2.40 m <sup>2</sup> )	111" (2.81 m)	111" (2.81 m)
Level III	120 min.	120-201 (with film**)	I.G. Units	2-7/16" (62 mm)	25.81 lbs/ft <sup>2</sup> (126.00 kg/m <sup>2</sup> )	OTHER THAN DOORS	3,724 in <sup>2</sup> (2.40 m <sup>2</sup> )	111" (2.81 m)	111" (2.81 m)
Level II	120 min.	120-202 (with film*)	Single Glazing	1-9/16" (41 mm)	18.64 lbs/ft <sup>2</sup> (91.00 kg/m <sup>2</sup> )	OTHER THAN DOORS DOOR	3,724 in <sup>2</sup> (2.40 m <sup>2</sup> ) 3,724 in <sup>2</sup> (2.40 m <sup>2</sup> )	111" (2.81 m) 41-5/8" (1.06 m)	111" (2.81 m) 89-3/4" (2.28 m)

\*For filmed products, one dimension of the glass cannot exceed 60" (1.52 m)

+ Available with a translucent interlayer

^ Interior use only

FOR APPROVED FRAMING SYSTEMS FOR USE WITH PILKINGTON PYROSTOP, VISIT [FIREGLASS.COM](http://FIREGLASS.COM) OR CALL 800.426.0279.

## SCHOOL GUARD GLASS ASTM F1233 AND HPW 5-aa1 (SG5)

FIRE RATING	PILKINGTON PYROSTOP DESIGNATION	SUPPLY FORM	NOMINAL THICKNESS	WEIGHT APPROX.	ASSEMBLY	MAX. EXPOSED AREA	MAX. WIDTH OF EXPOSED GLAZING		MAX. HEIGHT OF EXPOSED GLAZING	
							OR		OR	
45 min.	45-200	Single Glazing	1.25" (32 mm)	13.82 lbs/ft <sup>2</sup> (67.46 kg/m <sup>2</sup> )	OTHER THAN DOORS DOOR	4,500 in <sup>2</sup> (2.90 m <sup>2</sup> ) 3,724 in <sup>2</sup> (2.40 m <sup>2</sup> )	95-1/4" (2.42 m) 41-5/8" (1.06 m)	OR	95-1/4" (2.42 m) 89-3/4" (2.28 m)	
60 min.	60-101 <sup>^</sup>	Single Glazing	1.41" (36 mm)	15.46 lbs/ft <sup>2</sup> (75.46 kg/m <sup>2</sup> )	OTHER THAN DOORS DOOR	5,616 in <sup>2</sup> (3.62 m <sup>2</sup> ) 3,724 in <sup>2</sup> (2.40 m <sup>2</sup> )	96" (2.44 m) 41-5/8" (1.06 m)	OR	96" (2.44 m) 89-3/4" (2.28 m)	
60 min.	60-201 <sup>+</sup>	Single Glazing	1.57" (40 mm)	17.50 lbs/ft <sup>2</sup> (85.46 kg/m <sup>2</sup> )	OTHER THAN DOORS DOOR	7,442 in <sup>2</sup> (4.80 m <sup>2</sup> ) 3,724 in <sup>2</sup> (2.40 m <sup>2</sup> )	96" (2.44 m) 41-5/8" (1.06 m)	OR	118-1/8" (3.00 m) 89-3/4" (2.28 m)	
90 min.	90-102 <sup>^</sup>	Single Glazing	1.96" (50 mm)	22.21 lbs/ft <sup>2</sup> (108.46 kg/m <sup>2</sup> )	OTHER THAN DOORS DOOR	3,724 in <sup>2</sup> (2.40 m <sup>2</sup> ) 3,724 in <sup>2</sup> (2.40 m <sup>2</sup> )	96" (2.44 m) 41-5/8" (1.06 m)	OR	96" (2.44 m) 89-3/4" (2.28 m)	
120 min.	120-104	I.G. Units	2.63" (67 mm) with a 8 mm spacer	26.31 lbs/ft <sup>2</sup> (128.46 kg/m <sup>2</sup> )	OTHER THAN DOORS	3,730 in <sup>2</sup> (2.41 m <sup>2</sup> )	111" (2.81 m)	OR	111" (2.81 m)	
120 min.	120-202	Single	2.10" (53 mm)	4.6 lbs/ft <sup>2</sup> (22.46 kg/m <sup>2</sup> )	DOOR	3,724 in <sup>2</sup> (2.40 m <sup>2</sup> )	41-5/8" (1.06 m)	OR	89-3/4" (2.28 m)	
120 min.	120-262	I.G. Units	2.63" (67 mm) with a 8 mm spacer	26.31 lbs/ft <sup>2</sup> (128.46 kg/m <sup>2</sup> )	OTHER THAN DOORS	3,730 in <sup>2</sup> (2.41 m <sup>2</sup> )	111" (2.81 m)	OR	111" (2.81 m)	

Notes: The chart above reflects the UL-approved Pilkington Pyrostop sizing per rating but does not represent the available sizes of SCHOOL GUARD panels laminated to Pilkington Pyrostop. Please contact LTI if your panels exceed 15 square feet, or any dimension exceeds 72" (413.637.5001).

Both Pilkington Pyrostop and School Guard Glass have a ± 1/16" tolerance giving an overall thickness tolerance of ± 1/8"

+ Available with a translucent interlayer

<sup>^</sup> Interior use only