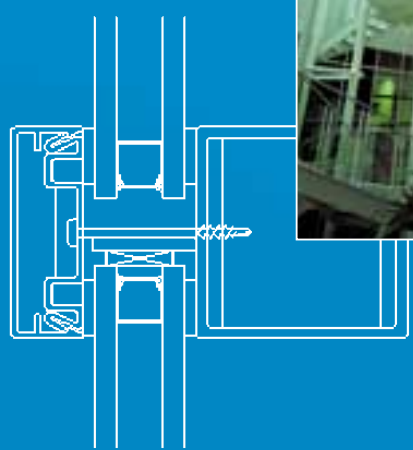




# SCHOTT PYRAN® S

The fire resistant glass with outstanding performance

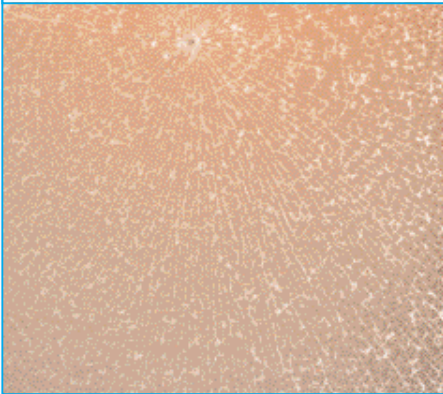


# PYRAN® S

PYRAN® S guarantees true & natural colour reproduction due to its low iron content. The brilliant whiteness of the glass provides high light transmission in visible & UV ranges.

PYRAN® S is a fully toughened monolithic borosilicate glass

In the event of breakage PYRAN® S shows a typical break pattern, i.e. small fragments.



PYRAN® S provides not only fire protection, but at the same time meets safety requirements. Therefore, it can be installed in critical locations where safety glass is necessary.

- Glass that stays clear at all times
- Float quality with outstanding fire resistance
- Very low coefficient of expansion
- High resistance to thermal shock
- Fully toughened, providing Class A impact rating
- Successfully tested in a wide range of frames
- Fire ratings beyond two hours
- Standard thicknesses 6, 8, 10 and 12 mm
- Large sheet sizes
- Wide range of applications
- Butt-jointing provides long runs without mullions
- Easy and safe to install
- Easily identified
- Extensive technical back-up

SCHOTT is an international technology-driven company whose core product is specialist glass. PYRAN® S is produced by SCHOTT in Jena, Germany which is certified to ISO 9001.

PYRAN® S is the only float borosilicate fire resistant glass. It combines a unique borosilicate composition with large panel sizes and provides distortion-free vision with its excellent optical float quality. It is not wired or laminated and stays clear at all times - even when subjected to fire. SCHOTT has tested with most of the major manufacturers of frames and seals for fire rated applications.

# The fire resistant glass with outstanding performance

PYRAN® S is manufactured at the only borosilicate float plant in the world to the highest quality standard.

Thermal expansion of PYRAN® S is three times lower than soda-lime glasses.



PYRAN® S has an extremely high chemical resistance and can withstand aggressive environments, UV degradation and chemical attack.



# Butt Joint



Don't let the importance of fire protection compromise your design. SCHOTT developed the first fire resistant butt joint glazing system in response to demands from architects, designers and building owners to provide a fire rated glazed area with maximum visibility. This is achieved by the elimination of obtrusive mullions, replacing them with intumescent sealant, thus permitting unlimited runs of fire resistant glazing.

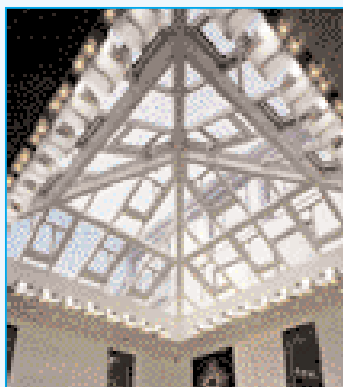
It is the unique borosilicate composition of PYRAN® S which allows architects and designers to use large panes of fire resistant glass to gain the maximum benefit in terms of light and vision.

Suitable with timber, steel or masonry perimeter frames.

# Double Glazed Units

PYRAN® S Double Glazed Units (DGU's) can be used in roofs and overhead applications, providing large areas of glass which are not only visually appealing, but also meet stringent external fire rated glazing and thermal insulation requirements set by the Building Regulations in Approved Documents B & L. These requirements, together with a growing awareness of fire safety, mean that with increasing frequency roof areas need to act as a fire barrier.

SCHOTT offers fire test approved DGU's in sizes of up to 1600mm x 3000mm for 30 minutes integrity, 1600mm x 2750mm for 60 minutes integrity and smaller units (1250mm x 2300mm) for periods up to 120 minutes.



The secondary pane can be made of laminated, toughened or body tinted glass and with low emissivity coatings. So, as well as providing the required fire barrier, PYRAN® S DGU's will also offer enhancements to thermal, acoustic and aesthetic qualities.

# Steel



PYRAN® S fire resistant glass has been extensively tested to provide over two hours integrity fire resistance in steel frames with multiple pane applications. Without pressure glazing 6 mm thick PYRAN® S has achieved over 120 minutes under test at the Warrington Fire Research Centre in a multi-pane steel frame with panels up to 2300mm high.

Of course, not all applications call for two hours fire resistance, but PYRAN® S can offer much larger pane sizes for shorter time periods.



Unlike many of its competitors PYRAN® S can be glazed with a generous rebate depth of up to 20mm with no gluing required. This can be a critical factor in the event of fire, and especially so with steel frames when the distortion of the frames under heat can reduce the depth of the glass rebated into the frame. No other clear, integrity, monolithic fire resistant glass has achieved this result.

# Timber

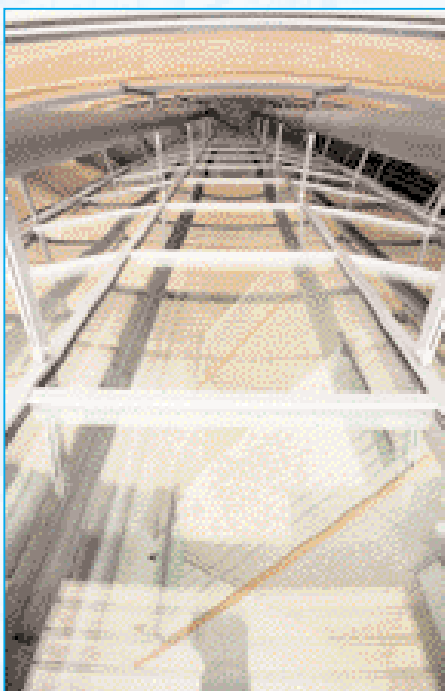
SCHOTT has extensively tested for 30 and 60 minute requirements using timber frames in multi-pane screens. As most screens require transoms and/or mullions, it is comforting to know that the systems offered by SCHOTT have been tested and assessed using these shared members which, in a fire situation, will suffer increased fire exposure and will char more rapidly than a glazed screen using a single pane with perimeter members only.

For 30 minute applications frames and doors can be constructed in softwoods (minimum density 500 kg/m<sup>3</sup>) and hardwoods or combinations of the two materials. We have also successfully tested using ash which, although a very popular timber for internal joinery situations, does not normally perform well in fire screens. For 60 minute applications the use of timbers with a minimum density of 650 kg/m<sup>3</sup> is recommended. No other clear toughened safety glass can achieve this time period.



# ...at a glance

Glass type	Toughened Borosilicate				General
Manufacturing process	Float process providing excellent optical glass quality				
Colour	Clear glass only				
Colour reproduction index (Ra)	~100%				
Integrity	Tested & approved in systems to 30, 60, 90, 120 minutes				
Impact resistance	Class A. When tested in accordance with BS 6206: 1981				
Thickness	6mm	8mm	10mm	12mm	Sizes
Maximum pane size	1600mm x 3000mm				
Minimum pane size	300mm x 200mm (smaller sizes may be possible on request)				
Size tolerance	<1m ±1mm <2m ±2mm <3m ±3mm				
Thickness tolerance	±0.2mm	±0.2mm	±0.3mm	±0.3mm	Physical Properties
Weight	14.1kg/m <sup>2</sup>	18.8kg/m <sup>2</sup>	23.5kg/m <sup>2</sup>	28.2kg/m <sup>2</sup>	
Light transmission	92%	92%	91%	91%	
Sound reduction when single glazed	31 ± 1dB	33 ± 1dB	34 ± 1dB	35 ± 1dB	
Density (at 25°C)	2.35g/cm <sup>3</sup>				
Modulus of elasticity	69 kN/mm <sup>2</sup>				Thermal Data
U-value	5.8 W/m <sup>2</sup> K				
Co-efficient of expansion (20-300°C)	4 x 10 <sup>-6</sup>				
Rate of thermal expansion	~ 0.3mm/m/100°C				
Heat conductivity at 90°C	1.26 W/mK				



Integrity Rating	Frame/Joint system		
	Steel	Timber	Butt-Joint
30 minute	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
60 minute	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
90 minute	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120 minute	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

# nice

**Identification:**

Each pane of PYRAN® S fire resistant glass is permanently marked in one corner with the name PYRAN® S, the SCHOTT trademark, the thickness of the glass, the safety classification Class A to BS 6206 and the Register of Safety Glazing Marks number.

**Important note:**

As PYRAN® S is a toughened glass it cannot be further worked after leaving the factory.



## ► Contact

For more information and technical details please contact us:

**SCHOTT UK Ltd**

Drummond Road, Stafford, ST16 3EL

Tel: 01785 223166

Fax: 01785 223522

[info.uk@schott.com](mailto:info.uk@schott.com)

[www.schott.com/uk](http://www.schott.com/uk)



Glass and Glazing Federation



Approved Certificate No. 935980

**SCHOTT UK Ltd**  
Drummond Road  
Stafford ST16 3EL  
Phone: +44 (0) 1785 223166  
Fax: +44 (0) 1785 223522  
Email: [info.uk@schott.com](mailto:info.uk@schott.com)  
[www.schott.com/uk](http://www.schott.com/uk)

**SCHOTT**  
glass made of ideas