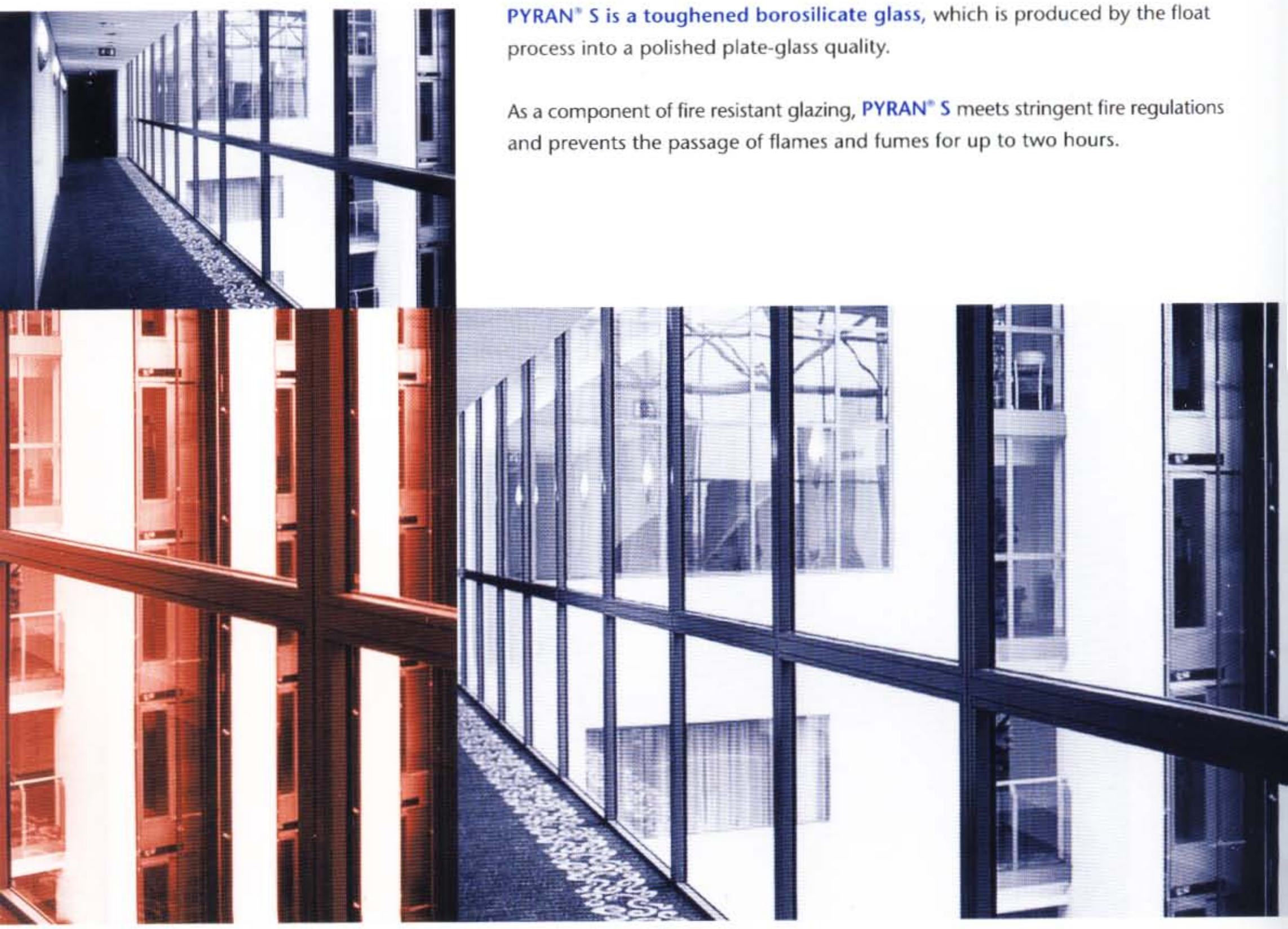
SCHOTT PYRAN® S: Fire Resistant Glass



PYRAN® S is a toughened borosilicate glass, which is produced by the float process into a polished plate-glass quality.

As a component of fire resistant glazing, **PYRAN® S** meets stringent fire regulations and prevents the passage of flames and fumes for up to two hours.

PYRAN® S - At a glance

Type of glass:	Toughened float borosilicate glass				
Approval:	General German Approval: Z-70.4-34				
Max. sheet size:	1600 mm x 3000 mm*				
Min. sheet size:	130 mm x 270 mm				
Max. approved sheet size:	1600 mm x 3000 mm*				
Colour Reproduction Index (Ra):	~100 %				
Thicknesses:	5 mm**	6 mm**	8 mm**	10 mm***	12 mm***
Weight:	11,7 kg/m²	14,1 kg/m²	18,8 kg/m²	23,5 kg/m²	28,2 kg/m²
Light Transmission:	92 %	92 %	92 %	91 %	91 %
U_v- value:	5,8 W/m²K	5,8 W/m²K	5,8 W/m²K	5,8 W/m²K	5,8 W/m²K
g-value:	90 %	90 %	90 %	90 %	90 %
Sound reduction Rw (single glazed):	30 dB	31 dB	33 dB	34 dB	35 dB

* *Size tolerances +/- 2 mm*
** *Thickness tolerances +/- 0,2 mm*
**** *Thickness tolerances +/- 0,3 mm*

Architects, working in close cooperation with building authorities and fire departments, have learned to take advantage of the creative and **cost-effective construction** possibilities that fire resistant glass such as **PYRAN® S** offers. Thin glasses and **large sizes** allow innovative possibilities. Only **PYRAN® S** has been approved for maximum sizes of **1600 mm x 3000 mm** for fire resistant glazing.

Multi-Functional

In combination with other types of glass, **PYRAN® S** can be incorporated into special double glazed units:

- **SCHOTT ISO-PYRAN® S**
- **SCHOTT ISO-PYRAN® S-D**
- **SCHOTT ISO-PYRAN® R**

In addition to fire resistance these combinations offer extra benefits:

- Sun protection
- Anti-glare
- Heat or sound insulation
- Protection of people and objects
- Design flexibility

PYRAN® S is adaptable to meet building standards and creative concepts.

Various applications

Systems glazed with PYRAN® S are used in:

- smoke protection doors
- high level windows, unlimited runs of partitions and dividing walls with multipane windows
- facades, roofs and all overhead applications

which prevent flames and fumes from penetrating interiors for up to two hours. Schott and its partners have already developed more than 40 approved systems that use PYRAN® S – in timber, aluminum, gypsum plaster and steel.

Our competence is your safety

The company SCHOTT JENA® GLAS GmbH is approved to the German industrial standard. Both the product and the production processes are strictly supervised by internal quality management and external authorities. Samples of PYRAN® S are frequently tested by the authorities within the scope of building regulations. All panes carry a permanent mark.

SCHOTT and its partners have developed approved systems, which can be adapted to specific building designs. Each approved system is supported by large scale testing by approved authorities.

Systems with PYRAN® S effectively protect against flames and fumes. They stay transparent even at high temperatures. Therefore the safe evacuation of people from burning buildings is more practical.

SCHOTT JENA® GLAS GmbH has its own on site testing furnace which allows testing of glasses and systems up to 3000 by 3000 mm.

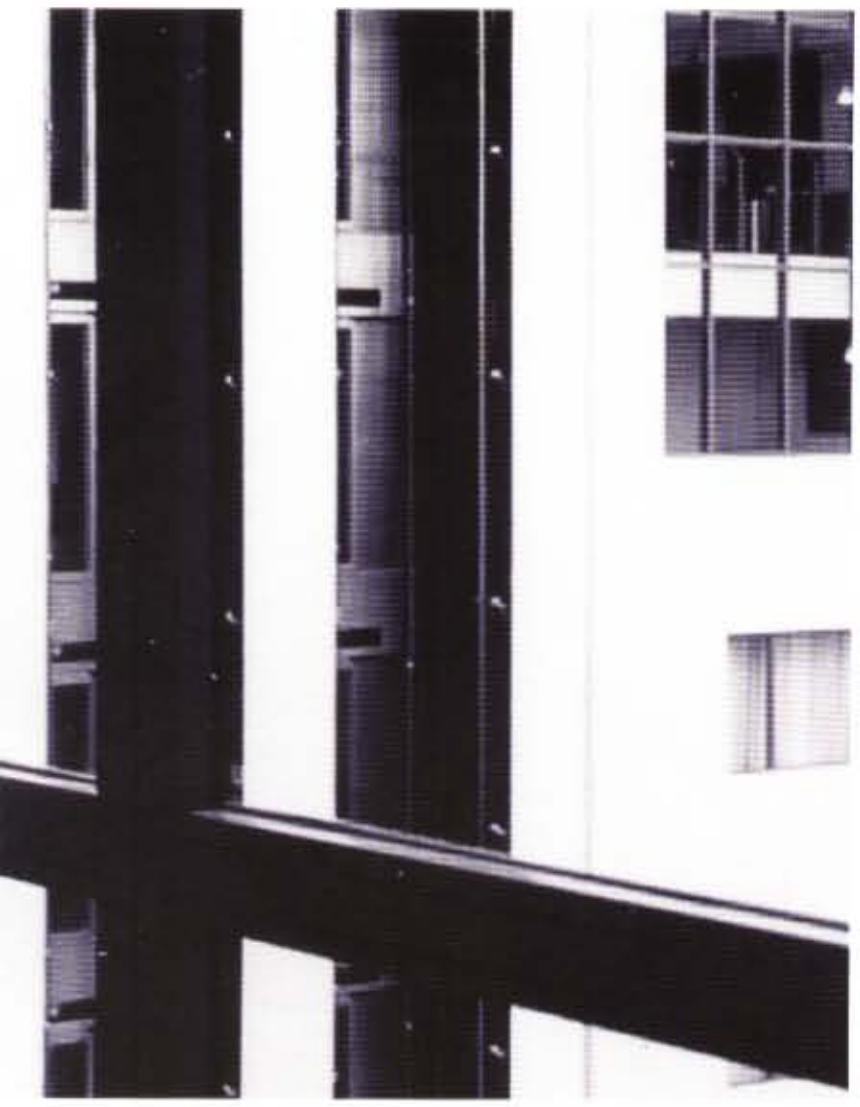
Brillant Optics

Characteristics of PYRAN® S

- high transmission in visible and ultraviolet ranges
- a true and natural colour reproduction

PYRAN® S has been tested to **extreme conditions** against

- aggressive environments
- UV degradation
- chemical attack



PYRAN® S is manufactured at the only borosilicate float plant in the world and offers outstanding properties.

PYRAN® S meets the requirements of a safety glass. In the event of breakage PYRAN® S shows the typical break pattern in very small fragments.

Compared with soda lime glasses, PYRAN® S has lower thermal expansion. This is the reason why it resists high temperatures and has long staying power even in simple frame constructions.