

IT PROTECTS YOU FROM FIRE AND NOISE

Apart from its considerable fire-resistance properties, class EI 30, 60, 90 and 120, Polflam's fire-resistant glass also has high sound insulation parameters: R_w – up to 45 dB. Both the indoor and outdoor glass has proved perfectly efficient in the most demanding settings.

Modern buildings must comply with basic requirements codified in Building Regulations. The structures must be engineered and made in such a way as to ensure its users adequate fire safety and noise control.

To achieve this, one needs to answer a few fundamental questions. Providing for maximum safety, how can we limit the spread of fire and smoke inside the building? How can we prevent persistent noise becoming burdensome to those living and wor-

king there? And how can we attain all these goals while ensuring the functionality of the structure and creating a unique, uncluttered space?

In modern design, glazed surfaces are becoming more and more important, being part of facades, partitions, doors, skylights or glass floors. When designing a building, however, appropriate acoustic properties of glazed partitions, inside and outside, need to be provided for, as well as its fire-resistance. The choice of glass is

of considerable importance as it translates directly into the safety of the building's users, the building's usability and aesthetics. Is there glass that would meet the highest standards at a reasonable price?

Polflam's fire-resistant glass, with fire-resistance of 30, 60, 90 and 120 min and extremely high acoustic parameters, R_w – up to 45 dB, matches perfectly with aluminium, steel and wooden joinery. The glass can be used in certain types of walls, e.g., plaster, brick



or frameless glazed walls. Why is it unique?

Polflam's fire-resistant glass will not only resist the high temperatures reached during fires but also will protect people evacuating the building against the dangerous thermal radiation. The glass is made using innovative, yet well proven technology, where glass panes are separated by special transparent hydrogel

The perfectly transparent panels of Polflam fire-resistant glass (LT up to 87.6%), withstand temperatures from +50°C to -40°C,

resist to the UV radiation, withstand contact with water and are extremely resistant to mechanical damage. The panes also have high soundproofing parameters to satisfy even those recommendations for places of particular noise intensity. This feature lets the design engineer create an oasis of tranquillity even in the busiest of places.

Polflam's single-pane fire-resistant glass's Rw index, which defines the required weighted sound reduction capacity, is: 40 dB for EI 30, 42 dB 60 EI, 44 dB 90 EI and

for EI 120 – 45 dB, respectively. Nevertheless, the sound transmission scale for this type of glass does not end here; when an extra layer of glass is added, the sound reduction capacity increases by ca. 1-2 dB.

Polflam's fire-resistant glass panels pass the most stringent sound control requirements. This can be observed, among other places, in the building of Henryk M. Górecki Silesian Philharmonic in Katowice where 180 m² of such glass was used.



Polflam's fire-resistant glass placed in the arcades protects the Silesian Philharmonic's Recording Studio located right behind the wall by providing an adequate level of sound proofing..