

LESS IS MORE

These three words capture the very sense of the new solution for fire-resistant partitions which has been launched by FR Solutions (www.fr-solutions.pl), using POLFLAM glass. The FR system is used to install frameless fire-resistant glazing in indoor partitions, which provides architects with new opportunities for interior design. Firstly, it gives an opportunity to develop the building's space more ergonomically. An interior with frameless partitions in the FR system is more spacious and feels lighter while keeping the user exceptionally safe. Secondly, the simply designed and easy-to-make glazing, free from conspicuous frames, provides the limitless options for how to shape space during and after construction phase.

The tendency in modern construction industry, is to use glazed indoor partitions where fire-resistant curtains were once used, keeping particular parts of the building safe from fire or smoke.

If a fire breaks out, glazed partitions create safe areas for the evacuation of people trapped in the facility. The FR system parti-

tion walls using POLFLAM glass meet the criteria of fire tightness in compliance with the technical standard PN-EN 1363-1 *Determination of fire resistance*. Therefore, they meet most restrictive fire-resistance requirements in all the EU member states. Furthermore, the advantage the partitions have over the fire-resistant curtains

made in traditional technology is their wide range functionality and their exceptional lightness. Installation is simpler, too. What is more, the partition retains its properties whichever side the fire comes from thanks to POLFLAM glass having a symmetrical structure. Being made of toughened glass, it also is extremely resistant.



FR system partitions of fire-resistance class EI 60 were used, among others, at the Rzeszów University's Science and Medical Centre for Innovative Research

Using FR system partitions, we not only provide residents with more safety but also with exceptionally efficient noise insulation – up to 45 dB and exposure to light – Lt up to 87.7%. The system has been tested under the conditions of a real fire, at POLFLAM's testing lab and it was checked and approved by European notification units.

The support structure used for fire-resistant glazed partitions is usually made of wood, steel or aluminium. The advantage of the FR system is that a glazed surface of 4.5 m² can be installed without any frames whatsoever. FR Solutions is the only company on the market to offer a full range of fire-resistant partitions in a frameless system. Design engineers can choose from glazed partitions, class EI 30, EI 60, EI 120, and also – **EI 180, which is new to the market.**

POLFLAM is the sole producer of fire-resistant glass in the EI 180 Class. One important feature

when using the FR system partitions is the freedom of shaping the space. This is possible thanks to POLFLAM's fire-resistant bent glass, of which POLFLAM is the sole worldwide manufacturer. Using POLFLAM's bent glass, the problem of difficult corners can be overcome.

The FR system is the only solution available on the market for fire-resistant opaque glazing to be made in RAL and NCS palette colours – with no need of double glazing. Therefore, the cost of such solution can be brought down to minimum. Fully transparent and opaque glass sheets can thus be joined in one partition with the option to add a sheet of reflective glass. Apart from its aesthetic features, the coloured appearance can play quite a practical role, too. It can help mark off extra rooms or organise your space.

So, what are the benefits of the FR system? A significant advantage of the system in the context of

space modelling is higher exposure to light. Narrow dark corridors get much more light and, in such a way, become visually larger. Compared with framed structures, the FR system gives more freedom in designing and arranging the interior, and in creating various visual and functional combinations, while ensuring compliance with the strictest fire-protection regulations and an investor's individual requirements. The financial gains are not to be underestimated, either. These include lower construction costs, as there is no need of expensive carpentry and joinery.

What is important, FR Solutions' consultants and POLFLAM's experts advise – as early as at the designing stage – on selection of partitions in appropriate fire-resistance classes or other fire-protection parameters, giving tips as how to optimise the opportunities of the FR system.



FR system of fire-resistance class EI 120 was used in the building of the University of Wrocław. Thanks to the application, the narrow corridor now gets more light.