

OBJECT

Teckentrup Doors

REPORT

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Vocational College Recklinghausen

Foyer Protection

Fire protection with a modern and aesthetically pleasing design is not a contradiction in terms. A perfect example is the foyer of the Max-Born-Kolleg in Recklinghausen in Germany. The galleries are glazed from floor to ceiling, combining technology and modern design. These transparent walls provide fire and fall protection and visually enlarge the inner core of the building.



WE OPEN THE DOORS FOR PROGRESS

OBJECT

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TRANSPARENT FIRE PROTECTION

The two new adjacent buildings for the “Max-Born” and “Herwig-Blankertz” vocational colleges and an associated sports hall are centrally located to the north east of Recklinghausen city centre near the main train station and bus station. The former coal mine site has been given a new lease of life as a college campus and is once again very much part of the city.

The college offers ten vocational training courses in seven fields of employment – an academic melting pot for roughly 3,000 students. And the “hottest place” in the college is the foyer, which extends over the entire height of the building. The corridors on the upper floors run around the core of the building like galleries, enlarging it visually – an architectural masterpiece, as a central foyer for several thousand people demands a harmonious and spacious feel.



The challenge and the solution

The foyer must comply with strict fire regulations, as it is also designed as an escape route for a large number of people. This design concept presents a high risk of fire spreading from one floor to the next with the foyer facing corridors on the upper floors leading to further potential risks.

The solution was floor-to-ceiling fire-protection glazing – designed to withstand fire exposure on one side. (The non-fire side of the element was specified by a fire safety expert.) The fire safety elements consist of two panes of glass (float / Pyran) bonded with PVB film, thus meeting fire safety and fall protection requirements. Special attachments (with acceptance in individual cases) prevent the elements from warping and twisting or the glass from breaking and shattering when subjected to fire. Installation was carried out using the steel profile system “Forster Presto”.

Smoke protection was also a requirement even in less prestigious parts of the building. For example, the staircases boast 34 tubular profile doors (T30) with a retractable bottom seal that provides secure smoke protection and ensures more durability than with conventional sliding threshold seals.



The fire compartments of the gallery are separated by T30-1 "Teckentrup E" sliding doors, which are usually left open. In spite of their size, the doors fit harmoniously into the overall architecture of the building. One reason is the flush wall installation for which special recesses were constructed. Furthermore, a uniform colour provides the door leaves and the counterweight and runner rail covers with a very effective look. Since the doorways extend up to the ceiling, the upper attachment is equipped with an artificial header installed directly on the ceiling.

Passageways from the flight of stairs to the upper floors are also usually left open. T30-1 "Teckentrup E" smoke and fire-proof sliding doors guarantee the required fire protection at these points.

This is not only a clever technical solution, but also a well-developed architectural feature which enhances the design: The doors fit harmoniously into the interior design, creating a varied and calming feeling of space and light.



Light, Air and Openness – the foyer of the Max-Born-Kolleg is extremely spacious. The floor-to-ceiling glazing of the galleries provides both fire and fall protection in one. Due to the large panes of glass a special type of attachment had to be found that would receive building authority approval or be accepted in individual cases.



T30-1 "Teckentrup E" fire-resistant sliding door: A wall recess enables flush installation, and an artificial header was installed directly on the ceiling for the upper attachment of the floor-to-ceiling door. Counterweights and runner rails are fully encased and match the colour of the building.

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Fire and smoke protection: Teckentrup fire barrier with additional smoke seal for fire and smoke protection in the staircase. The T30 sheet steel doors blend effortlessly into the modern architecture.



Construction	Facts
Operating company	Max-Born Berufskolleg, Recklinghausen
Architect	Scholl Architekten Partnerschaft, Stuttgart
Metal construction	Schmitz Metallbau GmbH, Kleve
Construction sum	Approx. 320,000 euro

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