



.LIGHT LOVES GLASS

PRESS RELEASE

Glare-free OKALUX K insulating glass for standardised sports halls in Berlin

Powerful combination

March, 2022. Berlin's first standardised sports hall has been built in modular timber construction at the Lily-Braun-Gymnasium in Spandau. The new building, which was designed by the architectural partnership scholl.balbach.walker, is part of the Berlin School Construction Offensive and is one currently nine planned three-field sports halls. The highlight in all of the buildings is the powerful combination of glare-free and ball-resistant OKALUX K insulating glasses from Okalux Glastechnik, the specialist in daylight systems.

Berlin has grown rapidly over the past years and with it the need for school places. The Berlin School Construction Offensive – a senate administration investment project for education, youth and family, set to run for ten years – has set itself the task of renovating and enlarging the existing school buildings and constructing 60 new ones. In addition, nine three-field sports halls are currently being built in a standardised design – so-called standardised sports halls (German: TSH). Seven of them offer standing room for 60 people on a gallery, while two larger standardised halls have grandstands with seats for 199 spectators. The first to be built is the so-called TSH60 at the Lily-Braun-Gymnasium in Spandau.

Asymmetrical top hat profile in series

A realisation competition was won by the design from the Stuttgart architectural partnership scholl.balbach.walker. In total, the new building has a floor area of around 1,700 square metres and offers space for a three-field sports hall with three equipment rooms, a multipurpose room and various function rooms as well as changing rooms, washrooms and toilets. The distribution to two auxiliary room zones with different depths along the longitudinal sides of the hall in favour of consistent ground-level use produces a striking contour in the cross-section that looks like a top hat profile and gets its individuality from the asymmetry. Symbolism and function merge into a single unit. The shifting of the changing room zone to the two gables also breaks the symmetry of



.LIGHT LOVES GLASS

the hall floor plan and zones the resulting diagonally opposite building recesses with two covered entrances: one to the public road, which is also accessible to local sports clubs and for competitions at the weekend, and one to the schoolyard for direct inner-school connection. The new building was constructed within a few months on a former football ground between Galenstrasse and Münsingerstrasse. That was made possible by the standardisation of the building elements and the high degree of prefabrication of the components, from the support structure to the building shell to the interior finishing. In this way, parallel to the standardised sports hall at the Lily-Braun-Gymnasium, it was also possible to commence work at other locations at short intervals - entirely in the spirit of a fast, cost-effective and ecological construction offensive.

Gymnastics with daylight

During the planning of the hall with the 45 x 22 metre sports area there were many different requirements, including natural lighting with ball-resistant glare protection on the inside and outside. OKALUX K insulating glass with translucent, light-scattering capillary inserts provided a suitable solution here. Without additional glare protection devices, this ensures homogeneous, shadow-free illumination of the interior with daylight, which not only has a positive effect on the well-being of the sportspeople, but also reduces energy costs. The triple glazing with a low U-value of 0.8 W/m²K and g-value of 21% ensures both the required thermal insulation and the necessary sun protection at the same time. For pleasant visual comfort during ball sport competitions such as basketball and volleyball, 74 thermally insulating windows are integrated into the vertically divided wooden-aluminium mullion and transom facade above the protective walls along the entire longitudinal sides of the hall. In addition to the ball-resistant properties of the glass, OKALUX K also convinced the architects through the individual tailor-made production in sizes of 1147 x 4880 and 1120 x 4880 millimetres.

"With the daylight system from Okalux we have been able to realise continuous glazing for the area between the protective walls and the hall ceiling that blends harmoniously into the 1.25 metre-wide facade grid with no disturbing horizontal subdivision," says Michael Walker. The fact that fast manufacturing time and quality are not contradictory is also shown by the good recyclability, durability and maintenance-free use of the selected OKALUX K insulating glazing.



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Pictorial material



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The first of nine standardised sports halls has been built at the Lily-Braun-Gymnasium in Spandau. A total of three are being built in the same district; others will follow in the city centre, Lichtenberg, Reinickendorf and Steglitz.

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The facade has a vertical cladding of pre-greying silver fir timber and is implemented with translucent glazing made of OKALUX K insulating glass.

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Okalux achieved the extraordinary height of 5 metres by stacking capillary slabs and concealing the joints with additional glass fibre tissue.

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In the choice of building materials, the new sports building impresses in terms of health and environmental compatibility and, with the help of the OKALUX K insulating glass, creates a pleasant daylight atmosphere in the sports areas and the gallery.

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