

press release

seele provides retractable membrane roof over the No.1 Court at The Championships, Wimbledon

As part of the full refurbishment of the No.1 Court at the world-famous tennis club in Wimbledon, façade specialist seele has provided 13 different façade types and a 6,000sqm retractable membrane roof over the whole stadium.

London, 1 July 2019. The second-largest stadium at The All England Lawn Tennis Club, the No.1 Court, has been fully refurbished over recent years. The work is now complete and a festive opening ceremony took place in May. The first championships took place in 1877 and the 2019 competition commenced on 1 July. This will be the first time that championships on No.1 Court will not have to be interrupted because of rain – thanks to the new, retractable roof by seele.

Retractable membrane roof for Wimbledon

The heart of the No.1 Court refurbishment project is the 6,000sqm retractable membrane roof over the entire stadium. A highly translucent material was needed so that even during rain, with the roof closed, the players could still enjoy optimum playing conditions. Therefore, a very exclusive material was chosen: a PTFE membrane woven from Teflon™ fibres. This material offers the best possible properties for this purpose, as it is translucent, extremely hardwearing and dust- and dirt-repellent. The roof required a total of 10 main membranes, 11 so-called drainage membranes, 80 batwing membranes for waterproofing the sides of the roof and a vertical membrane for the southern end of the roof. Over a length of 65m, the membranes are fixed to the 11 steel trusses that span across the stadium. The membranes are tensioned by steel cables (33t preload) so that they always remain free from creases and folds at any position of the roof. The structural calculations for the roof had to take account of the different roof positions and hence different load cases. In contrast to a normal roof, this membrane roof does not have just one fixed position; instead, its sliding function means it is subjected to different loads at different positions (open, 25% closed, 50% closed, 75% closed or fully closed). The 6,000sqm membrane roof can be closed in just 8 minutes, which in future will prevent matches having to be interrupted during rain.

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Unique understanding of materials: 13 different façade types

seele was responsible for all the external façades around No.1 Court, work that included both the upgrade to the existing façade and the complete extension with 15 hospitality suites on the fourth floor. Various materials such as aluminium, wood-plastic composite, high-pressure laminates and glass have been employed to construct façades totalling about 8,350sqm in area. For the modernisation of the existing building, seele selected glass façades and clad the external walls and staircase façades in high-pressure laminates (HPL) in “Wimbledon green”. The refurbishment work on the existing building presented challenges owing to the details: bespoke corner details, junctions between very different materials, ventilation cavities and the insect barriers required the utmost care during planning. Calling on its experience as a façade construction specialist, seele was able to comply with the requirements of the All England Lawn Tennis Club for a 1,200sqm façade made from wood-plastic composite (WPC). Maximum transparency was needed for all the hospitality suites in this area in order to achieve good views. To do this, seele provided about 350sqm of glass balustrades considering space in the assembly structure to allow the integration of planters for the championship at the suite balconies. Furthermore, 15 sliding doors and 175sqm of rooflights had to be supplied for the hospitality suites on the fourth floor.

Assembly and erection

The challenge posed by the full refurbishment of No.1 Court was not just the different materials, but primarily the work on site, which had to be completed within a tight schedule; construction work had to be interrupted to allow the championship to take place. That meant seele’s site crews had to be very flexible. Two time slots were prescribed, and after the first construction phase it had to be possible to play matches on the court without any disadvantages.

To simplify erection and be able to work as efficiently as possible, whole elements were pre-assembled with their supporting members. The cladding to the walls and soffits of the curving hospitality suite balconies were made up of just five panels over a width of 1.50m. Pre-assembly allowed the work on site to proceed smoothly and ensured completion on time.

The work that façade specialist seele carried out for the Wimbledon No.1 Court project once again shows the company’s extensive expertise when it comes to knowledge of diverse materials, innovative skills, reliability, perfectly coordinated logistics and flexibility during construction.

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seele group

The seele group, with headquarters in Gersthofen in Bavaria, is one of the world's top companies specialising in the design and construction of façades and complex building envelopes made from glass, steel, aluminium, membranes and other high-tech materials. The technology leader in façade construction was founded in 1984 by master glazier Gerhard Seele and steelwork engineer Siegfried Gossner.

Based on a profound understanding of design and materials, seele provides everything necessary for ambitious one-off designs true to the original ideas of engineers and architects. The seele group offers its building sector and industrial customers a complete package of services ranging from R&D, individual advice and joint conceptual design right up to the planning, detailed design and construction of their projects. seele's own production plants for technologically challenging designs and the group's own erection crews on site provide a guarantee of the very highest quality "made by seele".

The 1,000 employees of the seele group worldwide together generate an annual turnover of more than €250 million.

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Visual material



The fully refurbished No.1 Court at Wimbledon with its 13 different façade types and a retractable membrane roof by seele © seele



The 6,000sqm retractable membrane roof over Wimbledon's No.1 Court © seele

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The membrane roof structure almost closed © seele



Each of the 10 membrane segments is made from 500sqm of PTFE material provided by seele © seele

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The panels are made from WPC slats attached to a perforated sheet metal supporting construction © seele



The festive opening ceremony at the No.1 Court in May © seele