

A facade and roof at the same time – a domed arena made of ETFE film

At the football world championship, the Bundestag building presented itself to an international audience in a "Bundestagsarena" which was modelled on the dome of the Reichstag building. Ideally situated between the Bundeskanzleramt (Office of the Federal Chancellor) and the Reichstag, a system building made of braced girders was temporarily edified. Its roof and facade areas which are divided into 21 fields were stringed with a single-layer of ETFE film. Each field comprised an area of approx. 69 m².

The challenge was to stretch this flimsy film (200 my) in such a way that it would resist atmospheric exposure (e.g. thunderstorms). For this purpose a combination of an appropriate language of shapes and technical elements was used. This was realised by using a linear profile attachment along the supporting binding stones as well as a lower edge formation made of chain-like clamping profiles. One shaping and stabilising cable each is provided in the centre of the path. The conceptual design was developed in close co-operation with the event contractor Nüssli and Faching.-Büro FTL with whom Ceno Tec has already carried out various outstanding projects over the past few years.



ETFE film is crystal clear offering a translucency degree of approx. 97% and a transparency to UV rays of almost 100%. In order to reduce the blinding effect and the heating of the interior due to excessive solar radiation, the upper areas of the film had been printed with a special reflecting silver colour. The printing was implemented in shadowing degrees of 70%, 50% and 20%. The lower part remained transparent. CENO TEC used a total of approximately 1,800 m² of material. The surface of the dome was 1,500 m².



Project data

Customer	Deutscher Bundestag
general contractor	Nüssli GmbH
planning steel structure	Form TL, Radolfzell
Covered Area	ca. 1500 qm
Year of Construction	2006