

Two Atrium roofs made of ETFE for the Hitachi Power Office, Duisburg

The new company headquarters for the Hitachi group of companies, a 22,500 sq.m large office building, was erected at the Northern quay of the inner Duisburg harbour. Two mirror-inverted identical atrium roofs provide both protection for 2 patios and a high incidence of daylight at the same time.



Each roof consists of 24 ETFE cushions which are mounted on a diagonally arranged supporting framework made of steel. The polygonal steel framework all around is mounted on pillars. The height of the pillar mounting is approx. 600 mm. The membrane cushions are mounted along the edges with aluminium profiles. For any perspiration water possibly developing, perspiration water channels are arranged underneath the profiles. Surface space of each roof approx. 257 sq.m.

The membranes have been given three-dimensional form by a specific cutting and processing technology. For shadowing, 50% of the surface is printed with round dots in a silver-greyish colour shade.

Structure of the membrane cushions

- Top membrane 250my, 50% printed with round dots dia. 16mm
- Intermediate membrane 100my, non-printed, mechanically tensioned
- Base membrane 250my, non-printed



Project data

Customer	Hochtief Constructions GmbH
Architect	Bahl + Partner, Hagen
Statics Membrane	form TL, Radolfzell
Roofed surface	514 sqm total
Year of construction	2008

