LUXEMBOURG CENTRAL STATION

PROJECT DESCRIPTION

The Luxembourg Central Train Station was built in the early 20th century. Current alterations have expanded the entrance hall and renovated the pedestrian marquee and the bicycle parking. The entrance hall is notable for the design and details of its metal structure. ETFE covering is naturally integrated into the neo-baroque architecture of this building.

The new structure transmits visual lightness of great beauty, created with a rhomboid shape. This element was also used as the basis for a special design that is printed on the EFT laminate.

The pedestrian platform, with an inverted roof to two waterways, is 117m long and 8m wide. The hall platform stands out because of its design and the details of its metal structure, and it creates an individual and integrated space in the station that is natural. The roof, 65m in length, is sectioned into 160 pieces of ETFE. Each membrane is reinforced with cables placed parallel to one another every 85cm. The print on the laminate has different opacities that tint the natural light.

The new space was designed with a dynamic structure, steel support and an ETFE cover.

CHARACTERISTICS

Material	ETFE
Application	Infrastructure and equipment
Dimensions	2.400m²
Architect	Luxembourg
Client	AREP
Year	2011

TECHNICAL DATA

Single layer with 250µm ETFE film, transparent and printed with a special design.

IASO monolayer system
One single ETFE sheet with double curvature geometry, which sometimes can also be contained in the plane. Generally, reinforced by cables in one direction or both. In monolayer applications, it is critical in the initial tension to introduce a prestressed sheet. Knowledge of the subject and a good calculation process will determine the appropriate prestressed settings so that the coverings will work properly over the years.

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