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Which stadiums and other iconic structures have been built with innovative and advanced compounds such as ETFE foil?

ETFE Foil In Architecture

It is hard to imagine anything in modern architecture that does not make use of transparent structures, in case of roofs and facades. ETFE foil is a type of fluoropolymer material that is used in constructions and usually reinforced with cable net reinforcement to span wide areas. This kind of structure is extremely popular in Europe and is being used in office atriums and educational buildings as well as zoos, however is perhaps most famous and notable for use in the construction of modern sports stadiums. The cost of building and installation works out to be much cheaper than traditional construction method. It is more resilient as it can bear around 400 times its own weight. Additionally, it is recyclable and self-cleaning thus making for a more environmentally sustainable building.

The Eden Project

Although not a stadium in the traditional sense, this building is a modern feat of engineering which simply has to be mentioned when talking about ETFE foil. The panels of the project are made of ETFE foil. ETFE weighs only 1% that of the equivalent area of glass and is also able to control lighting levels to a better extent. The construction was originally supposed to use glass, but the designers preferred ETFE as it is more flexible, lightweight and also more durable. It has resulted in the creation of greenhouses where several plant species from all around the world can be housed. It is one of the defining structures using ETFE foil in the architecture.

Basel Stadium

The St Jakob Park houses Basel FC as well as the Swiss soccer team and it was designed by Herzog and de Meuron. The ETFE foil film used created a puffy shape with the help of air panels surrounding the outer portion. These panels, known as cushions throughout the industry, are heat sealed after pumping air that is devoid of humidity. This allows this sustainable compound to be effective in terms of light transmission as well as a natural insulation method.

Beijing National Stadium

The Olympics stadium constructed for the 2008 Games was structurally made of woven steel. The steel is entangled with ETFE foil cushions, with the pillows filling the space along the framework to create the stadiumâ€™s distinctive look. These elements of the structure therefore protected the main structure as well as the inner stadium and spectators from the outside weather elements. Eden Park, New Zealand, is another sports stadium notable for the use of ETFE foil in its construction.

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The author talks about a ETFE foil being used in the construction of great architectural structures.

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