

Queensferry Crossing

Client

Scottish Government

Solution

Tufnol isolation washer

Tufnol Composites has supplied specialist products to the new state-of-the-art bridge across Scotland's Firth of Forth, the Queensferry Crossing.

Isolation washers manufactured from Tufnol's high performance glass laminate are forming preloaded connections with the bolts that attach critical components to the bridge construction and have been specially designed to cope with the forces that will be placed upon them every day, 365 days a year. The washers are being supplied to the Forth Crossing Bridge Constructors who were responsible for the design and construction of the new bridge for Scottish Government's transport agency, Transport Scotland.

The new 1.7 mile (2.7km) bridge is the longest three tower, cable stayed bridge in the world. The project is part of a major upgrade of the cross-Forth transport corridor in the East of Scotland, representing an investment of up to £1.35bn from the Scottish Government.

Gerard Kiely, Head of Section for Forth Crossing Bridge Constructors, said:

"We needed the bolt washers manufactured from a material that would be robust enough to stand up to the rigours of being installed on a bridge situated in one of the UK's harshest environments. This is not only in terms of strength, but also includes resistance to all kinds of weather conditions and corrosion from sea salt.

"We have found the Tufnol isolation washer to be highly suitable for use with preloaded stainless steel connections. These products are quite niche and initially we did not know if we would be able to source a product that would isolate different metals for corrosion purposes, while also withstanding significant preload. It was therefore good to work with Tufnol who were able to meet our requirements, the washers are exactly what we were looking for from both a structural integrity and performance standpoint."