

ANCIEN PALAIS, TURKMENISTAN

The original dome of the Ancien Palais was manufactured from tin sheet on a steel substructure. The tin skin of the dome had deteriorated over time and a replacement dome in FRP was manufactured to fit onto the original steel substructure.

The dome was manufactured in Dubai using Gurit epoxy resin and corecell core. The segments of the dome were shipped to Turkmenistan, where the light weight of the dome allowed the panels to be pre-assembled and the dome installed in two parts.

The stiffness of the sandwich construction employed for the dome allows large spans between support points, and this enabled the dome to be fixed to convenient points on the original substructure. Epoxy - glass FRP laminates have a similar coefficient of thermal expansion to steel, and this helps the structure to withstand the wide temperature range experienced in this region.

