

The Sheikh Jabbar Al Ahmad Causeway, Kuwait



Facts:

- 1,800,000 m² Formtex[®]
- 36 km long concrete bridge
- Named after the deceased Sheikh Jaber Al-Ahmad Al-Sabah
- Total project costs US\$ 3 billion
- Construction period: start 2013, complete 2018
- 1,200 concrete pillars
- 1,211 bridge elements
- Expected lifetime: 120 years

1,800,000 m² Formtex[®] to one of the largest bridge projects in the world.

A 36 km causeway connecting Kuwait City with the Subiyah region. There are high requirements for the durability of the concrete as it must be able to withstand impacts from sand storms and salt water. The solution is to cast bridge spans and pillars in shutterings lined with Formtex[®] to give the concrete optimum durability. This also reduces maintenance costs to a minimum which is very important as the project is a Design-Build-Operate Project.

Fibertex Nonwovens has worked for more than a decade to be qualified for the project. In this connection, Formtex[®] was tested in laboratories and benchmarked against competing products. Moreover, Fibertex Nonwovens has carried out extensive consultancy, teaching and training activities in Kuwait, prior to the production of concrete. The preparatory activities took place in large production halls in the middle of the desert, where the 60 m long, 25 m wide and 7 m tall bridge elements were produced.



The 36 km long causeway will connect Kuwait City (bottom of the photo) and Shubiyah New Town.

The giant bridge spans in the storage facility in the desert where they are left to set prior to offshore transport and installation.



The Sheikh Jabar Al Ahmad Causeway, Kuwait



Bridge spans



Special casting hangars were built for the construction of the 60 x 25 x 7 m spans.



Formtex® is attached to the moulds with a special glue.



The bridge spans are quality-assured before being lifted to the storage facility for setting.



Floating cranes are lifting bridge pillars and bridge spans in place in the bay.

Bridge pillars



Steel shutterings are lined with Formtex® – it is important that the cloth follows the curves of the mould.



The tested and approved prototype of a bridge pillar.



Formtex® withstands the challenges and ensures a strong and intact surface of the finished bridge pillar.