

The world's largest land reclamation

- based on Fibertex Geotextiles

Hong Kong International airport

- Area increase of the Chek Lap Kock island from 3 km² to 12 km²
- 367 million m³ of stones, gravel and sand reclaimed
- More than 7 million m² of Fibertex geotextiles used for separation in the subbase, and for filtration at the coastline



Hong Kong Intl. Airport

The project

Hong Kong International Airport opened in 1998 and is one of the busiest airports in the world with 35 million passengers annually. The platform of the new airport is the partly man-made island Chek Lap Kok off the north coast of Lantau island. Creating the island was a combined excavation and reclamation project and a total of 367 million m³ of stones, gravel and sand was moved.

The Fibertex Solution

To stabilize the subbase and prevent migration and mingling of materials still allowing free movement of water, Fibertex F-4M was installed between the construction layers as a separator. For protection of the 13 km of coastline, Fibertex F-1000M was chosen as a filtration layer.

More than 7 million m² of Fibertex Geotextiles were used and the high uniform quality, prompt delivery and optimal service were key factors when choosing Fibertex.



Separation



Filtration

Geotextile functions

To stabilize the subbase and prevent migration and mingling of materials and still allowing free movement of water, a strong and flexible geotextile is placed between the different layers.

High puncture resistance to resist the strains of installation (large stones) and use in general is decisive for the load-bearing capacity of the construction.

At the coastline a geotextile with excellent hydraulic properties to prevent fines from being washed out by the waves while maintaining free movement of water is decisive for the load-bearing capacity of the construction.

Fibertex F-4M and Fibertex F-1000M were chosen for the project.



Testing the quality

To test if any damage would occur during installation, Fibertex F-4M was installed in a trial construction. After compaction the sand was carefully removed and the following inspection showed that the Fibertex geotextile was undamaged. Its separation and filtration ability remained unchanged.

