

GEOSYNTHETICS



CASE STUDY Rajang River bank protection works at OGC Jetty, Tanjung Manis, Malaysia



Protective Fabrics
Space Composites
Aerospace Composites
Advanced Armour

Geosynthetics
Industrial Fabrics
Grass



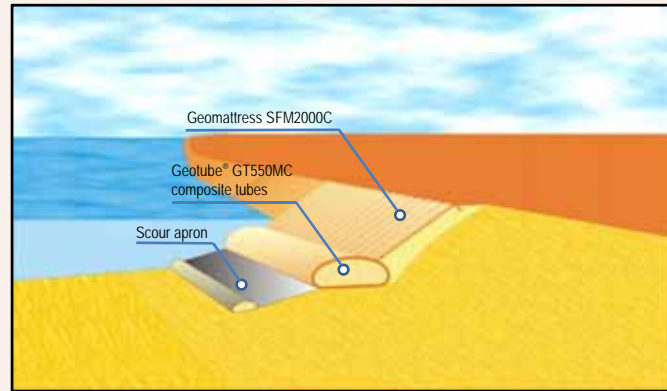
Composites geocontainment systems for riverbank protection

Oil Gas & Chemical Jetty, Tanjung Manis Port, Sarawak, Malaysia

Rajang River (or Rejang River) originates in the Iran Mountains in Borneo Island, then flows southwest to Kapit where it turns westward to finally discharge over a swampy delta into the South China Sea. With a 560 km course, the Rajang in Sarawak is the longest river in Malaysia. The port of Tanjung Manis on the Rajang is located about 30 km from the sea; and has a container terminal; a deep sea fishery wharf and facilities complex; and an oil, gas and chemical (OGC) jetty.

The OGC jetty expansion project is designed to have 2 berths, each 200 m long with 12 m draught to cater for larger vessels. The project also included bank protection works. Rock is not readily available nearby and site access is difficult. Geotube® GT550MC composite tubes and sand filled Geomattress SFM2000C were used to protect riverbank adjacent to the jetty. Vegetation can take a long time to be established naturally and turfing will not sustain in these brackish water environment. The composite fabric used for the fabrication of the Geotube® and Geomattress units is extremely robust and has the ability to entrap sediment within the fabric structure. The net result are Geotube® Systems that not only is stable against currents and waves but can also withstand weathering and sunlight exposures over the long term.

Standard Geotube® GT550MC units of 10.8 m in circumference and 25 m in length were used as toe stabilisation units. Scour apron is installed in front of the Geotube® GT550MC units. After the Geotube® GT550MC units are installed, the riverbank is gently sloped back. sand filled Geomattress SFM2000C are then installed above the Geotube® GT550MC units.



TenCate Geotube® is a registered trademark of Royal Ten Cate. The information contained herein is to the best of our knowledge accurate, but since the circumstances and conditions in which it may be used are beyond our control we do not accept any liability for any loss or damage, however arising, which results directly or indirectly from use of such information nor do we offer any warranty or immunity against patent infringement.