

LA CROISSETTE BEACH, FRANCE

Enhancing coastal resilience using GEOTUBE



Industry: Water
Sub-industry: Coastal protection and reclamation
Location: France
Product: **GEOTUBE®**

The project required the construction of four submerged breakwaters, strategically positioned to be invisible from the beach, yet strong enough to absorb the brunt of wave energy. Given the significance of the Cannes Film Festival, the project had explicit instructions to be executed either during the spring or the autumn to avoid disrupting the event. The entire execution phase spanned 18 weeks (about 4 months).

Overview

The City of Cannes, known worldwide for its luxurious beaches and the illustrious Cannes Film Festival, undertook an initiative to bolster the resilience of its iconic La Croisette beach. Facing erosion due to aggressive wave actions and its adverse impact on shoreline establishments, particularly the multitude of restaurants, there was a pressing need for a durable solution that would not only aid the restaurant owners by minimizing disruptions during high tides and waves but also enhance beachgoers' experiences, by ensuring a safer and more enjoyable environment.

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CASE STUDY

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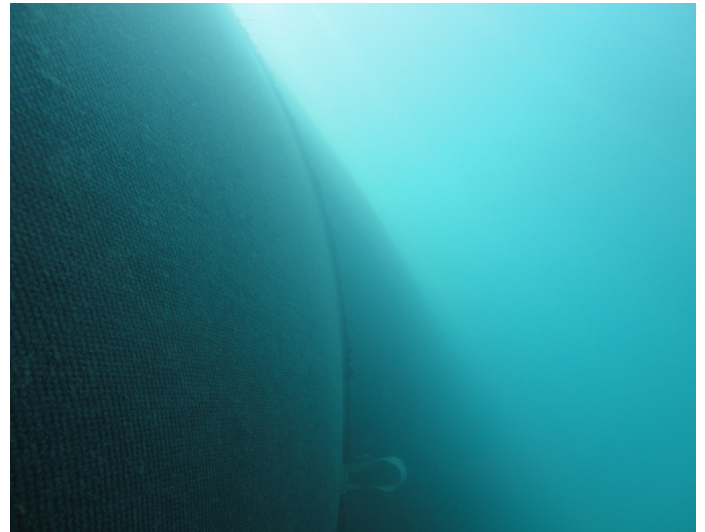
Challenge

Implementing this project required meticulous planning and impeccable execution. The contractor, Trasomar, commenced by installing scour aprons to counter erosion around the submerged breakwater due to wave activities. Following this, the **GEOTUBE** systems were integrated. Using a combination of a large pontoon, divers, and a sand pump, one **GEOTUBE** system was filled daily.

Solution

Positioning the breakwater approximately 150 m (492 ft) from the shoreline at a depth of 3.5 m (11.5 ft) was challenging, especially given the wave actions that sometimes escalated to a staggering 2 to 5 m (6.6 to 16.4 ft), mandating work halts. The process of dredging sand from the sea and ensuring continuous flow through a floating 500 m (1,640 ft) dredge line presented its set of challenges.

The products were selected for their strength, 200 x 200 kN/m¹ fabric and robust seams. Their UV resilience retains over 65% strength even after a decade under the sun. The non-woven material was essential for filling the systems with finely graded materials. All **GEOTUBE** products carry a CE certification, and we maintain rigorous testing standards.



An earlier attempt by a competitor had faltered, resulting in a product lifespan of just a year due to substandard installation and polymer selection. This swayed the City of Cannes to exclusively use **GEOTUBE** units for the job.

The overarching lesson is the importance of product selection. The submerged breakwaters have remained effective for over a decade, with only minor maintenance required.



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