

Elastocoast® – An innovative Technology in Coastal Protection ... today and tomorrow



What is Elastocoast®?



Elastocoast® stands for an innovative solution in coastal protection, developed in cooperation with TU Hamburg Harburg (DE) and TU Delft (NL).

Elastocoast® also stands for a high-performance, two-component polyurethane (PU) material, comprising 50% renewable raw materials.

Elastocoast® revetments need only 1.7% of binder content or 1/30th of that required in concrete or bitumen revetments.



Installation of Elastocoast®?



Gravel are coated with Elastocoast® in a standard mixer

The Elastocoast®-stone mixture is used to construct the revetment

Conventional Coastal Protection Measures



Concrete revetment Open stone asphalt

Disadvantages of conventional revetments:

- High volume of concrete or bitumen as binder of up to 140 kg/m²
- Sealing of the surface
- Unable to absorb impact of waves fully and efficiently, causing considerable overtopping.
- Consequently, abrasion and dislodgment may result in the revetment due to internal pressure and external loads
- Habitat for natural vegetation is removed



Elastocoast® revetment

Advantages of Elastocoast® revetments:

- Impact of waves is well absorbed, hence reducing the extent of overtopping
- Environmentally certified.
- Conservation of habitat for natural vegetation.
- Integrates well with the surrounding landscape

The Future of Coastal Protection

The scenario:

Sea levels are rising
Frequent storm surges

The risk:

Dike failure by overtopping

The challenge:

Strong, cost-effective and environmentally friendly protection against overtopping

The solution:

Elastocoast® revetments offer efficient reduction of overtopping

The verdict:

Elastocoast® is a tested alternative to increasing the heights of dikes



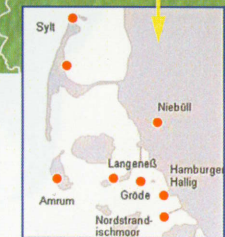
Elastocoast® revetment tested against overtopping by Rijkswaterstaat (NL) showed outstanding performance

Elastocoast® Revetments in Europe



In cooperation with:

- LKN (DE)
- TU Hamburg-Harburg (DE)
- TU Delft (NL)
- Rijkswaterstaat (NL)
- Port Authority Le Havre (F)
- Tendring Council (UK)



Projects in the North Sea



Hamburger Hallig, DE, (2004)



Sylt, Ellenbogen, DE, (2005)



Sylt, Munkmarsch, DE, (2007)



Oosterschelde, NL, (2008)