AquaRockBag®

CHRISTOFFERS
Official distribution partner of iGG for Germany

CASE STUDY

SCOUR PROTECTION AT THE HARBOR OF LÜBECK

INTRODUCTION & PROBLEM STATEMENT

In the port of Lübeck, damage to the shore and port facilities caused by scouring occurred repeatedly. These are mainly caused by the strong currents and turbulence that occur when ships maneuver. The innovative **AquaRockBag®** was chosen as the solution to ensure the long-term stability of the port facilities and reduce maintenance costs.

THE SOLUTION

The project specifically used 4T **AquaRockBag®** made from HDPE. These robust and durable bags were strategically installed in the most affected areas to control the erosion caused by the ship's movements.

AquaRockBag® are characterized by their ability to absorb the energy of the water, effectively reducing currents. Compared to traditional solutions such as hard block revetments, which merely move erosion problems further downstream, **AquaRockBag®** offers a more sustainable alternative.

ADVANTAGES

The use of HDPE (high-density polyethylene) in **AquaRockBag®** offers several advantages and is characterized by the following benefits:

- **Excellent UV-resistance:** HDPE is particularly resistant to UV radiation, which increases its durability and resistance in outdoor areas, especially when used in water for long periods.
- **High tensile strength and tear resistance:** The material is extremely resilient and can withstand heavy mechanical stresses, making it ideal for use in demanding environments such as harbors, rivers or coastlines.
- **Resistance to chemicals:** HDPE offers excellent resistance to a wide range of chemicals that can be found in marine or industrial environments, making it a particularly robust choice.
- **Long service life:** The combination of material strength, UV and chemical resistance ensures that **AquaRockBag®** made of HDPE offers a certified service life of up to 100 years, which supports the sustainability of the solution.

LOCATION

The Port of Lübeck is the most south-westerly seaport on the Baltic Sea and stretches along the River Trave from Lübeck city center to the entrance to the river in the Lübeck-Travemünde district.

RESULTS & IMPACT

This measure significantly reduced the damage to the port of Lübeck caused by scouring. The stability of the port facilities was improved and maintenance costs were significantly reduced thanks to the long-term protection.

This project underlines the versatility and efficiency of the modern solution for scour protection and coastal erosion.

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