German Marina gets first basalt fiber-reinforced docks

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Norderney, a tiny picturesque island in the North Sea, has been a popular German resort since 1797. In a multi-phase project, its marina will be protected from the area's typical gales and high seas by ground-breaking 21st-century technology. The first such installation in the world, X-Line basalt fiber-reinforced docks from SF Marina are replacing 30-year-old aluminum units.

Typical concrete docks are reinforced with steel rebar, which is vulnerable to saltwater corrosion and ultimately causes the structures to crack. Revolutionary X-Line docks utilize basalt fiber reinforcement, similar to carbon fiber, developed through an agreement with ReforceTech.

This new lightweight material is non-corrosive, non-magnetic and non-conductive. Because of its superior properties, concrete docks can be built with thinner walls, require less maintenance and have an almost limitless service life. An X-Line dock is only 31" high, with an impressive 20" freeboard.

Norderney's 250-berth marina, composed of piers and finger bridges, is replacing a total of 1,800' of docks with SF Marina X-Line units. The first phase includes four docks in 40' sections to protect the marina entrance, secured with elastic, non-corrosive Seaflex mooring.

This project is being coordinated through construction partner SF Marina Deutschland GmbH, which installs custom breakwaters around the world, from the Arctic to the tropics. The engineering firm offers a comprehensive range of SF Marina floating bridges, gangways, breakwaters and other state-of-the-art marina infrastructure.

Norderney Marina, the centerpiece of the 10 sq. mile island, is a family-oriented marina with a sailing school, surf shop, bike rental, café, lending library and a playground with garden chess. This well-equipped facility offers transient docks, wireless Internet access, toilets and showers, a laundry, ship's store, fuel dock and service center. The well-known sailing club hosts frequent regattas.

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