

# XblocPlus Breakwater, Shoreline & Coastal Protection System

Contech Engineered Solutions has partnered with Delta Marine Consultants to bring a revolutionary Hard Armor Solution system, the **XblocPlus**, to the United States. The **XblocPlus** system is well-suited for the protection of the United States' vast coastline, shorelines and breakwaters.

**XblocPlus** can handle waves up to 30 feet and slopes up to 1.33H:1V while using 40% less materials than traditional armor solutions. **XblocPlus** has undergone extensive laboratory testing at the Deltares Delta Flume, the world's largest hydraulic testing facility.

**XblocPlus** has an efficient and unique installation system that saves valuable time and money.

## Features and Design Advantages

- Regularly placed, staggered grid block system
- Interlocking, single layer
- Up to 50% fewer units than traditional solutions
- Multiple sizes available from 2-53 ton units
- Ability to handle steep slopes up to 1.33H: 1V
- Twice the safety against design storm events
- Designed to be a maintenance free system
- Architectural finish

## Applications

- Ports
- Marinas
- Terminals
- Coastal Airports
- Shoreline
- Coastlines
- Harbors
- Piers
- Tidal Protection
- Breakwater

## Testing

- Extensive testing conducted in the Deltares Delta Flume
- Testing on multiple wave heights, wave steepness and slopes
- 3-D model tests
- Ability to scale test project geometry and hydraulic conditions

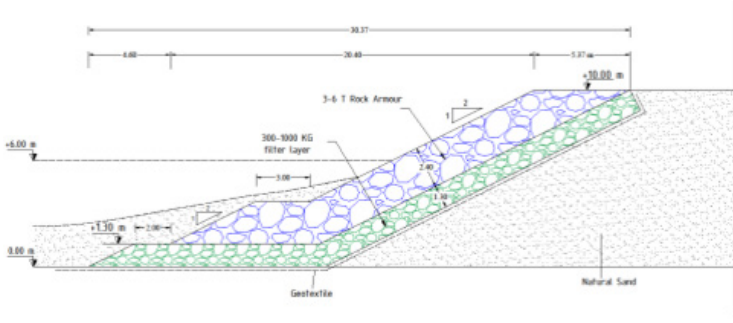
## Installation Advantages

- Regular placement
- Clear approval criteria
- Reduced labor requirements
- Minimizes installation time
- Accurate and safe



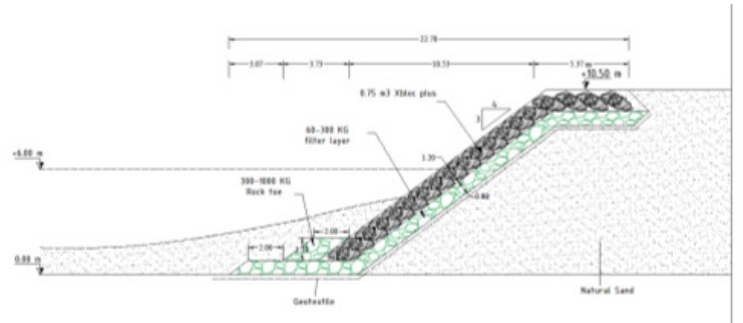


Afsluitdijk, The Netherlands - Aesthetic and functional coastal revetment system



### Conventional Rock Revetment

- 60-ton/ft
- Shallow slope
- Additional maintenance
- High CO<sub>2</sub> Impact

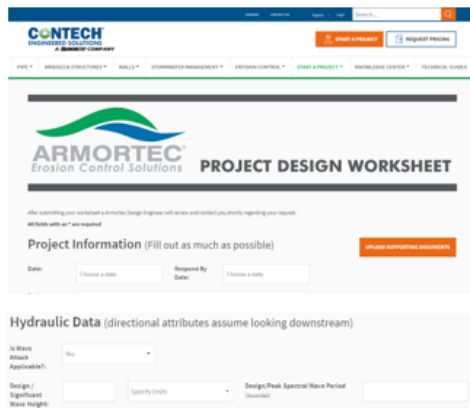


### XblocPlus Revetment System

- 20-ton/ft
- Steeper slope
- Maintenance free
- Lower CO<sub>2</sub> Impact

## Online Project Design Worksheet

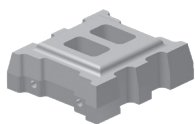
[www.conteches.com/ArmortecPDW](http://www.conteches.com/ArmortecPDW)



### Inputs for:

- Project Information
- Hydraulic Data - Including Waves
- Material Requirements
- Comments
- Attach Electronic Files
- Contact Info

[www.conteches.com/ArmortecPDW](http://www.conteches.com/ArmortecPDW)



**ArmorFlex®**



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**XblocPlus**