# LIVING SEAWALLS



HABITAT ENHANCEMENT BOULDERS

**PRODUCT INFORMATION** 

JANUARY 2024

ENHANCING THE ECOLOGICAL VALUE OF ARTIFICIAL MARINE STRUCTURES





#### Living Seawalls Boulder Habitat Units

The Living Seawalls Habitat Enhancement Boulders are an innovative solution for coastal defence that combines traditional rock breakwaters with ecological benefits. These boulders are designed to mimic natural habitats and encourage the growth of marine organisms, helping to restore coastal ecosystems while providing protection against coastal erosion and storms. The boulders can be used to replace or augment traditional rock breakwaters, making them an ideal solution for coastal communities looking to balance their need for coastal protection with their desire to promote sustainable coastal management.

#### Product features:

- Eco-Friendly: The Living Seawalls Habitat Enhancement Boulders promote the growth of marine organisms and helps to restore coastal ecosystems, making it an eco-friendly addition to traditional rock breakwaters.
- Durable: Made from high-quality concrete, the Living Seawalls Habitat Enhancement Boulder is built to withstand the toughest coastal conditions, including storms, high winds, and erosion.
- Customisable: The boulders can be designed to fit specific coastal environments and can be integrated into existing coastal defence systems.
- Cost-Effective: The eco-engineered Living Seawalls Habitat Boulder is a cost-effective solution for coastal protection, offering long-term benefits without the need for ongoing maintenance.
- Aesthetically Pleasing: These Boulders blend in with natural coastal environments and offer an attractive addition to coastal landscapes.
- Sizes range from 130kg 2000kg.





#### Habitat Boulder 600

DIMENSIONS GIVEN IN mm

MATERIAL: 50MPa concrete with composite reinforcing bar.

WEIGHT: 130 kg

MANUFACTURE: Precast from a 3D printed moulding system, cured for 30 days.











#### Habitat Boulder 1200

DIMENSIONS GIVEN IN mm

MATERIAL: 50MPa concrete with composite reinforcing bar.

WEIGHT: 1,000 kg

MANUFACTURE: Precast from a 3D printed moulding system, cured for 30 days.











#### **Ecological Features**







**Highly textured surfacing** achieved using 3D printing technology. Surface rugosity allows for organisms such as seaweed and shellfish to attach more firmly to the substrate. Water retention features mimic natural rockpools, providing refuge to marine organisms during low tide. Recent surveys in Sydney Harbour found that Living Seawalls Habitat Enhancement Boulders supported over 70% more marine species than nearby sandstone boulders. **Geometric complexity** allows for surface variation and provides a range of unique habitats that support a range of different species.



### Lifting System & Packability



Lifters are cast within each unit and are load rated for 1300kg.



Lifters make product deployment seamless with the aid of a small crane or excavator.

Boulders are delivered on pallets.





### Living Boulders Installation at Lavender Bay, Sydney, Australia







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For more information, please contact info@livingseawalls.com.au

> or visit our website www.livingseawalls.com.au





Living Seawalls works in collaboration with Reef Design Lab



www.reefdesignlab.com