

# Aslan 100 GFRP

## NON FERROUS REINFORCEMENT

Artificial Reefs to fight against corrosion of seabottom and regenerate sealife.

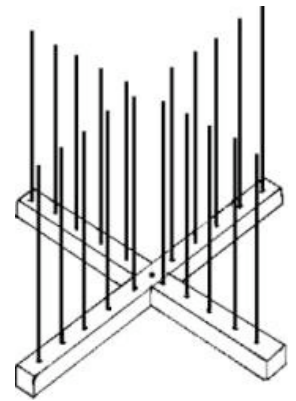
DBS Marine ( <http://dbsmarine.free.fr> ) developed new reef structures that prevent marine erosion of the seabottom and enhances marine fauna and sealife. These special reefs are used in a new process against marine erosion working on the principle of "current brakes".

The artificial reefs are made of two or more concrete legs from which Aslan 100 "rods" stick out vertically. They are installed at the seabottom and after a period of time the marine fauna will grow on the rough surface of the Aslan 100 rebars.

( pictures showing the growth of 30 cm marine fauna after 180 days on a 16 mm Aslan rebar).

These reefs are also used for marine fauna repopulation programs or for skin diving activities.

DBS Marine Artificial Reefs have been used in Cannes and Cap Ferret in France, Marland in Sweden and in Senegal.



Day 1  
16<sup>mm</sup> diameter



Day 60  
10<sup>cm</sup> diameter



Day 180  
30<sup>cm</sup> diameter

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**AslanFRP**

## Where and why to use artificial reefs

Diest, 02 May 2008

Interested parties :

- Oceanographic societies
- Central Fishery board
- Marine institutes
- Coastal cities – dept of public works
- Marine contractors
- National parks
- Private shoreline investors and developers
- Beachfront Hotels

Why use artificial reefs with the Aslan rebars ?

Concrete materials (the bottom blocks) are extremely compatible with the marine environment. The Aslan rebars are inert, do not cause any pollution (by rusting, leaching, chemical weathering), but they increase biological activities due to the rough surface. Concrete is typically bulky and it is difficult to build an artificial reef out of them. But in our artificial reefs the concrete blocks are just at the bottom as weight and the Aslan rebars stick up to increase the surface.

Advantages:

- 1) Modern coastal defense philosophy has been turning away from the “hard” defenses, typically by concrete seawalls toward “ soft engineering” approach, absorbing wave energy before it impacts easily eroded beaches or shorelines.
- 2) Artificial reefs may also be specifically designed to physically protect sensitive biotopes and nursery areas (also from small trawling boats, violating the law and fish too close to shore). This will enable more fish to develop and therefore increase the biomass of stocks in the open seas.
- 3) Commercial fished crustacean (lobsters, etc) are generally dependent on a hard substrate in which they live. Therefore the role of artificial reefs is primary one of either providing habitat where none had existed before, or a modification of a natural habitat.
- 4) It will cause stagnation and local accumulation of drifting larvae, eggs, algae, so enhancing the growth of mussels, shellfish, etc. And develop new marine farming grounds.
- 5) Another potential area for use of the artificial reefs is in the seaweed culture sector.
- 6) Recreational: to provide more reliable access to fish for recreational fishermen.
- 7) Ecotourism: to provide convenient sites for divers with concentration of fish and other organism.

Watch the video of the artificial reef made of Aslan rebars at Cap Ferret, France at : [www.scaphpro.com/recifs.html](http://www.scaphpro.com/recifs.html) and click on : vidéo du récif du Cap Ferret