

# AquaScape

## Construction Epoxy

Aquascape is a two-part epoxy putty that has been specially developed by D-D for use in salt water and freshwater aquariums and other underwater applications.

In the marine aquarium it is ideal for bonding together live rock to form complicated structures and avoiding rock falls caused by turbo snails, sea urchins and strong current flow, for preparing coral frags and for creating clam bases to prevent them being attacked and ultimately killed by bristle worms. In addition it can be used to repair leaky pipe work, broken equipment or for bonding items to the aquarium glass.

Aquascape has been developed to be stickier than most epoxies so that it bonds easier to wet substrates and the purple version has been formulated to dry under water to the colour of coralline algae. This makes it initially more natural within a marine aquarium during the period before being encrusted with true coralline algae. Note however that when cured out of the water the colour will be darker representing the deep red coralline algae colour.

For freshwater aquariums and for repairing liners and preformed ponds, the Rock Grey version is perhaps more suitable however both colours can be used in any environment.

The two sticks have a long shelf life but once mixed the resultant putty is at first soft and highly adhesive and then gradually hardens. Speed of hardening is dependant on temperature and at normal temperatures (20-25°C) Aquascape becomes semi hard in 3 - 4 hours, taking slightly longer at the surface when cured under water. Warming the mixed putty for 10 seconds or more in a microwave can accelerate the speed of curing.

Once fully cured Aquascape can be machined, drilled, tapped, turned, filed, sawn, sandpapered and painted if required and is heat resistant up to 130°C.

Aquascape will bond to any of the following materials: – wood, brick, cement, metals, concrete, rock, plastic, glass etc making it an excellent adhesive however it is not designed to be used as a thin layer bonding agent where a conventional glue is indicated.

If you have not used Aquascape before we suggest that you make yourself familiar with its behaviour before use within the aquarium. Mix a small amount and notice how sticky it is when first mixed then observe it over the next 2 –3 hours. After half an hour it becomes rubbery and can be cut with a knife or scissors before becoming quite hard and tack free. Observe the change in colour when used under water. Overnight it becomes fully cured and sets rock hard.

### Instructions for use.

Mix together equal parts of each stick from the pack, kneading and rolling for at least 5 minutes until the colours merge and become uniform then mix for a further minute. To make the putty easier to work with, the pieces of unmixed putty can be warmed in a microwave for 5 –10 seconds making it more pliable.

In the putty state (i.e. before setting) Aquascape, like most chemicals in domestic use, may cause irritation to sensitive skins.

When mixing the two components it is therefore advisable to use rubber or disposable polythene gloves. If the hands have been used for mixing or manipulating Aquascape we recommend that you wash them immediately after use with toilet soap and warm water.

### Hints

If the putty is cold then place the cut but unmixed pieces in a microwave for 4-5 (or more) seconds to soften the material making it easier to fully mix. Once mixed the putty can be put back into the microwave to significantly reduce the setting and final cure times.

Experimentation with microwave times is recommended however be **aware that it is possible to burn the hands if handled after overheating the putty either before or after mixing.**

When using in the aquarium it is common to find a powdery talcum material coming off the mixed putty, which can temporarily cloud the water. This residue is non toxic at low levels and can be reduced by mixing the putty under the tap or in a bucket of water before use. This can then be dried off and reworked.

If the aquarium becomes visibly cloudy then we suggest that you are overworking the putty in the water and should wait until this clears before using any more material.

### Coral Positioning and Coral Propagation

When working with corals frags it is recommended that tweezers are used to push the cut section into the putty as residues from your hands or gloves may reduce the success or speed of initial recovery and growth of the coral.

If positioning large corals we would suggest that you first fill a bucket or container with water from the aquarium then apply the Aquascape to the coral base and splash it around in the bucket to remove any further residues. Push the coral into position and prop if necessary until the putty sets.

### Clam Protection

Clams are very susceptible to attack by bristle worms, especially when positioned on a sandy or gravel substrate. If you have had clams die in the past then this is probably why. The worms attack the base of the clam at night and slowly eat it from the inside.

If an Aquascape base shaped to the individual clam is used then the clam will glue itself onto the base thus sealing itself from attack.

To create the clam base first mix the putty and form it into a ¼ inch thick elongated pancake. Press the clam onto the Aquascape to make an impression, remove the clam and place the putty in water to allow the colour change to take place and leave to set. Position the clam on the base inside the aquarium. The clam will now glue itself onto the Aquascape base and protect itself against any attack.

**Coral branches** (live rock) can be prepared to make it easier to fix live corals to them by pre-drilling 5-10mm holes in suitable positions. Corals attached to dowels of Aquascape can then be inserted into the holes. Prepare the dowels 24 hours prior to use with flattened ends and use further putty to attach to the chosen coral or frag. Support the dowel and leave to set for 24 hours before bonding into the hole in the coral branch.

### **Rock Structures**

Rock structures should always be secure to prevent rockslides from occurring once the aquarium is established with subsequent damage or disturbance to the system.

Blobs of Aquascape can be used to create feet on the base of the foundation rocks for increased stability and to lift the rock off the substrate thus preventing anoxic areas from developing.

To stop the rock from sticking to the glass, place a sheet of Clingfilm under the foot whilst it sets and then remove it.

Having established a firm foundation, subsequent rocks can be fixed into position using a combination of cable ties for support and Aquascape for a permanent bond.

Tall pinnacle structures can be created by drilling the rock and sliding the pieces onto a length of PVC pipe as a supporting backbone with Aquascape to fix them together.

Aquascape will even bond rocks to glass.

### **Pipe work and Pond Liner Repairs**

Aquascape can be used to repair small weeping joints or cracks in pipe work and aquarium equipment and also to repair leaks in concrete and pond liners.

#### **CAUTION:**

- KEEP OUT OF REACH OF CHILDREN.
- STORE IN A COOL PLACE.
- BE CAREFUL ABOUT THE USE OF LARGE QUANTITIES AT ONE TIME IN TANKS STOCKED WITH CORALS OR FISH.
- ENSURE THAT MARINE AQUARIUMS ARE WELL AERATED AND SKIMMED DURING USE OF THE PRODUCT AS CLOUDING OF THE WATER FROM OVER-MANIPULATION UNDER WATER MAY IN SOME CASES REDUCE OXYGEN LEVELS. MANIPULATION IN A SEPARATE BODY OF WATER OR MICROWAVING WILL REDUCE CLOUDING DURING FINAL USE.