Saltwater Mixing Containers, How to Create

Drs. Foster & Smith Educational Staff

HAVE PREPARED saltwater ON HAND

For about $65, you can create the perfect saltwater mixing container to have available for emergency water replacements, as well as your regular water changes. Always use purified water when mixing saltwater, either by purchasing distilled water or by producing it with an RO/DI filter.

What you need:

- New 30-55 gallon plastic trash container
- Floating thermometer
- Powerhead
- 200W Marineland Visi-Therm Heaters
- Instant Ocean Hydrometer or Portable Refractometer
- 10 ft of 1/2" tubing
- Synthetic Sea Salt

What you do

Rinse your plastic trash container with tap water, no detergents, and place it next to the aquarium. Fill it with the amount of purified water you will need.

Measure and record the water temperature and specific gravity in the main aquarium.

Place the thermometer in the mixing container. Position the powerhead and the heater near the bottom of the mixing container to enable the salt to dissolve quicker.

Divide the total amount of salt required into three equal parts. Slowly add a third at a time to the mixing container, allowing it to dissolve completely before adding more. Check the water temperature as you go. When all the salt is completely dissolved, it's time to test specific gravity.

Crucial Testing

Refractometers measure salt levels in water very accurately even in low salt situations and compensate for temperature. Simply lift the plastic lid from the angular end, place a drop of water on the surface, and close the lid. Look through the viewing lens (round end) as if you're looking through a telescope. The line where the blue and white areas meet is your salinity or specific gravity, depending on which scale you use. Add salt if too low, water if too high.

Continue running the powerhead for several hours to thoroughly aerate the newly prepared saltwater. Ideally, the salt mix should be prepared at least 24 hours in advance, but airstones attached to an air pump can be used to achieve proper oxygen/carbon dioxide equilibrium. Once properly mixed, tested and oxygenated, the saltwater is ready to use. Be sure to use a lid when storing surplus saltwater to prevent contamination or evaporation.

Target Specific Gravity Ranges:
1.020 to 1.024 for fish only systems;
1.023 to 1.025 for reef systems.
Target Temperature Ranges:
72-80°F for fish only;
75-78°F for reefs.

We Recommend

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Instant Ocean Hydrometer

Vital Sine Refractometer

Hagen Aqua Clear Powerheads

Marineland Visi-Therm Heaters

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