

333 Aquarium Silicone Sealant



ACETOXY SILICONE TECHNICAL DATA SHEET

NuFlex® 333 Aquarium Silicone Sealant is a one-part, moisture curing, 100% silicone sealant that has been specially formulated for the construction of aquariums. It will never shrink, dry out or crack; remains permanently flexible and is harmless to fish and plants. **NuFlex® 333** permits the building of aquariums with an unobstructed view of the fish not available in conventional “framed” aquariums. It also makes it possible to make three, five, six or more sided aquariums that are not normally available and they can be divided into compartments, integrated into coffee tables or even be made to look like a picture frame in a wall. Experts recommend the use of 6.4 mm (1/4”) plate glass for most tanks up to 120 litres (30 U.S. gals) because of the “clear vision” through the plate glass.

FEATURES & TYPICAL USES:

NuFlex® 333 eliminates toxic poisoning of fish and plants, which may occur with metal frames and conventional hard glues. Outstanding adhesion to glass without the need for a primer. Remains permanently flexible and adhesion is not affected by constant contact with water. Unobstructed view of the fish even through the sealant. Easy application with all-plastic caulking cartridge. Can be used for aquariums up to 400 litres (100 U.S. gals.). Design of the aquarium is only limited by the imagination of the builder.

CAUTION:

Use in well ventilated areas and avoid breathing vapors. On contact, uncured sealant irritates eyes. Flush eyes with lukewarm water. Call physician. Avoid skin contact and do not ingest. **Keep out of reach of children.** For complete safety information, consult the Material Safety Data Sheet. Standard silicones may not be used to join sensitive natural stones such as marble, granite or quartz, as this may cause staining at the joint edges

LIMITATION:

In confined cure conditions, **NuFlex® 333** may: 1) Discolour brass, copper or other sensitive metals. 2) Stress craze polycarbonate.

TYPICAL PROPERTIES:

These values are not intended for use in preparing specifications. Spec Writers; please contact NUCO Inc. before writing specifications if any further information is required.

Description	Specification
As Supplied...	
Specific Gravity:	1.01
Flow Rate (sag or slump):	Nil
Tack-Free Time 25°C (77°F) and 50% R.H.:	10 – 20 minutes
Cure Time at 25°C (77°F) and 50% R.H., (3.2mm (1/8” Thickness):	24 hours
As Cured – Physical – after 7 days at 25°C (77°F) and 50% Relative Humidity:	
Hardness (ASTM C 661, Shore A):	25 points
Tensile Strength (ASTM D 412, Die C)MPa (psi)	2.24 (325)
Elongation (ASTM D412, Die C):	550

MANUFACTURED BY:

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FORM: 333_TDS.DOC

REV.: 3 DATE: 05/08



FEATURES:

- 100% Silicone.
- 100% RTV.
- Ideal for aquariums up to 400 Litres (100 US gallons).
- Excellent adhesion to glass.
- Create any imaginable aquarium shapes!

AVAILABLE SIZES & COLOUR:

- 300 mL (10.1 fl.oz.) cartridge
- 12 cartridges per case
- 144 cases per skid (300 mL)
- Available colors include: clear.

SPECIFICATIONS:

NuFlex® 333 complies with the following specifications:

- (1) CAN/CGSB-19.13-M87,
- Class MG-2-25 - A - L,
- (2) ASTM C920, Type S,
- Grade NS,
- Class 25, use NT, G, A, O.
- U.S. Fed Specs TT-S-001543A and T-S-00230C Type 2.



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SURFACE PREPARATION & APPLICATION:

It is important that the glass be ordered from a professional glass supplier and that it be cut to the exact size required and that all the angles be square. The edges should also be buffed to eliminate the possibility of being cut by any sharp edges during construction or use. Any stains should be removed before starting to build by wiping down with rubbing alcohol, rinsing with water and drying with paper towels. This cleaning will ensure that the aquarium sealant will adhere securely to the glass. Do not use soap or detergent to clean the glass as they are toxic to fish and will reduce adhesion of the sealant. It is also important that any uncured sealant not be wiped off the glass with paper towels as they can cause smearing and leave lint on the surface, requiring additional clean up later. Make sure that your work area is large enough and well protected from accidental contact with uncured sealant. Once you have laid out all the parts of the tank, it is important that you proceed with the construction without delay as the sealant will start to "skin over" in a few minutes and then may not adhere properly to the glass.

- Step 1:** Place "bottom" glass on flat surface along side a 90° vertical surface about 12.7 mm (1/2") away and run a 6.4 mm (1/4") bead of sealant along the edge closest to the vertical.
 - Step 2:** Place the "back" glass panel onto the sealant. Do not apply pressure. The weight will "seat" the glass and then lean it against the wall for support. Don't worry about alignment as this will be done later.
 - Step 3:** Apply sealant down the edge of the "back" and "bottom" pieces and lay in the "end" panel of the aquarium. Put the end panel onto the bottom first and then bring the back panel into place. This begins the alignment.
 - Step 4:** Holding the back panel firmly in place, put a bead of sealant along both edges as in step 3. Then lay the other "end" panel into place. You will notice that the aquarium is becoming more sturdy with each piece put into place. Do not attempt to wipe away any sealant that might ooze out of any joints. Allow this to cure. It can be easily cut away later.
 - Step 5:** Apply a similar strip of sealant along the remaining 3 edges of each "side" and the "bottom" panels. Then the remaining piece, which will be the "front" panel, can be gently but firmly, pushed into place.
 - Step 6:** With all the pieces in place, it is time to align all the corners. Apply gently but even pressure, pushing all the panels together leaving a thin film between the surfaces. When you are completely satisfied with the results, leave the aquarium for 48 hours for the sealant to completely cure.
 - Step 7:** When the sealant is cured, take a single edged razor blade and cut away all excess sealant. Take care not to cut into the sealant in the joints. To avoid this, first cut down on the joint and then turn the blade to 90° from the glass and hold the blade on a slight angle. This will remove all the excess sealant.
- After excess is cut away, an additional bead of sealant should be placed all around the inside of the aquarium and then tooled smooth with a wet finger or spatula. It is advisable to use a cover for the aquarium. To make the cover slip-proof, run a bead of sealant around the top edge of the aquarium where the cover will sit. The cover should be smaller than the aquarium to allow space for a light or passage of tubes which carry filters or air tubes. Wrap the cover in a polyethylene bag and put it into place on the top of the tank. Allow the sealant to cure for 24 hours and then remove. The poly bag will not adhere to the sealant and you will have a silicone rubber strip around the top of the tank. This will cushion the cover and stop it from slipping off the aquarium by accident.

SHELF-LIFE & STORAGE:

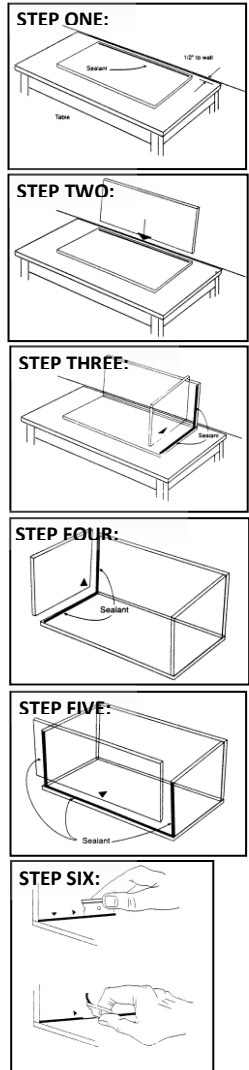
Shelf-life is 12 months from date of shipment from our plant when stored in a clean, dry area with temps between 4°C to 32°C (40°F to 90°F).

DISCLOSURE

The information and data contained herein is BASED ON INFORMATION WE BELIEVE TO BE RELIABLE. Please read all statements, recommendations or suggestions herein in conjunction with our CONDITIONS of SALE which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions, nor do we intend them as recommendation for any use which would infringe any patent or copyright.

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WARRANTY INFORMATION:

NUCO Inc., warrants only that its product will meet its specifications. NUCO shall in no event be liable for incidental or consequential damage. NUCO's liability, expressed or implied is limited to the stated selling price of any goods found to be defective.

