



Product Data

ASI Aquarium Sealant Silicone Sealant

DESCRIPTION

ASI 502AQ Silicone Sealant has been specifically formulated for the fabrication of fresh and salt-water aquariums. This high modulus component RTV Silicone Sealant forms strong cohesive bonds to glass without the need of primers. The bonds are unaffected by continuous immersion in water and, when fully cured, is non-toxic to fish. ASI 502 AQ Silicone Sealant is a non-slump sealant and can be applied to vertical surfaces without flowing or sagging.

- High Modulus
- Excellent primerless adhesion to glass
- Bond unaffected by continuous immersion in water
- Excellent clarity

Because ASI 502 AQ Silicone Sealant is a 100% silicone sealant, it has excellent resistance to weathering including ozone, ultra-violet radiation and airborne chemicals.

ASI 502 AQ Silicone Sealant can be applied to surface temperatures from -18°C to +50°C (0°F to +120°F) and after curing, withstands constant operating temperatures from -57°C to +233°C (-70° F to 450°F).

MATERIAL PREPARATION

For successful bonding, glass must be clean of all dust, dirt and oil. The presence of these contaminants may impede the development of the bond. Therefore, it is essential that the glass be cleaned with suitable and compatible cleansers such as nonoily solvents, diluted solutions of acetic acid or extremely hot water. The cleaned glass should be wiped dry immediately with a clean, lint free cloth or blown dry with hot oil free air.

DO NOT clean glass with soap and water solutions. Soap residue can act as a release agent and result in adhesion failure.

Clean glass should be handled with clean, lint free gloves or equivalent only. Oils from hands and fingers can act a release agents resulting in adhesion failure.

APPLICATION

1. Glass must be properly prepared as described.

2. Apply the aquarium sealant to edge surface of the glass to be joined to the non-edge surface. After application of the sealant, the assembled glass components should be tightly placed in a fixture or jig to allow sealant to flow evenly between joined surfaces and to give support during the internal sealing of the aquarium.

3. Selected bead size appropriate for the size of aquarium being constructed. Apply the sealant into the center of the joint formed by the

sections of glass. Tool the sealant immediately after application. Any excess sealant should be removed before the sealant is cured by suing a clean cloth and a suitable solvent such as MEK (methyl ethyl Ketone), TCE (trichlorethylene) or alcohol.

Cured sealant can be trimmed with sharp blade. Allow sealant to cure at least 7 to 10 days before adding water and fish. This will ensure full cure and will allow the curing agent to totally dissipate.

REPAIR APPLICATION

The ASI 502 AQ Sealant can be used to repair old or damaged aquariums.

1. Remove all of the damaged sealant, clean area to be repaired with a clean cloth and a suitable solvent. Apply sealant as described above and tool.

2. Check repaired aquarium for leaks before adding fish to tank. Fill aquarium with water and let sit for several days and check for any signs or leakage.

WATER IMMERSION TYPICAL LAP SHEAR STRENGTH

ASTM METHOD C-961

Curing conditions 7 days @ 77°F and 55% Rh

Days immersed in water	Force required to separate, psi	Failure mode
1	212	100% Cohesive
7	209	100% Cohesive
90	206	100% Cohesive
180	208	100% Cohesive
300	203	100% Cohesive

TYPICAL PHYSICAL PROPERTIES

Uncured

Color.....	Clear
Tooling Time, Min.....	5-7
Tack Free Time, Min.....	10 min.
Cure Time at 77°F and 55% (RH ¼" thickness).....	24 hours
Flow, Sag or Slump.....	Nil

Cured Physical

Durometer Hardness,	
Shore A Points.....	27
Tear Strength, Die B, lbs./in.....	45
Modulus.....	65
Tensile Strength, psi.....	520
UV Resistance.....	Excellent
Elongation.....	-500 %
Temperature Range.....	-80°F to 400°F (-62°C to 250°C)

PACKAGING

ASI 502 AQ Silicone Sealant is supplied in:
(2.7 fl. oz.) squeeze tube,
(10.2 fl. oz.) caulking cartridge,
(40 lb.) pail and (440 lb.) drum.

MILITARY SPECIFICATIONS

ASI 502 AQ Silicone Sealant meets the requirements of MIL-46106 Type 1.

CONSTRUCTION SPECIFICATIONS

ASI 502 AQ Silicone Sealant meets Federal Specifications TT-S-001543A, Class B and TT-S02300, Type 2, Class B.

SAFETY PRECAUTIONS

ASI 502 AQ Silicone Sealant releases small amounts of acetic acid during cure. Adequate ventilation should be provided with extensive use of this sealant. On direct contact, uncured sealant may irritate eyes. Flush eyes well with water and call a physician. Avoid prolonged contact with skin.

STORAGE

ASI 502 AQ Silicone Sealant, when stored in original, unopened container at or below 27°C (80°F), has a shelf life of 12 months from date of shipment.

WARRANTY LIMITATIONS

ASI warrants only that its products will meet its specifications. ASI shall in no event be liable for incidental or consequential damages. Except as expressly stipulated, ASI's liability, expressed or implied is limited to the stated selling price of any defective goods.