



American Sealants, Inc.

"High Performance Silicones, Sealants, and Adhesives"

ASI Aquarium Grade Silicone Sealant

PRODUCT DATA SHEET

OEM Industrial and Commercial Product

Features:

- 100% Aquarium Safe Silicone Sealant
- High Performance, Excellent Adhesion
- Excellent Resistance to Degrading
- Fish and Aquatic Life Safe
- Excellent Clarity
- Bonds to a Variety of Common Substrates
- Excellent Tensile Strength and Versatility

Additional Benefits:

- Contains No Solvents or Isocyanates which makes ASI Aquarium Silicone Sealant VOC Compliant
- Easy to Dispense and Work With
- Fluctuates With Changing Temperatures and Climates
- Fast Tack Free Time

Description:

ASI Aquarium Silicone Sealant has been formulated to offer a high strength silicone sealant that is aquatic life safe for the aquarium and aquatic market. ASI Aquarium Silicone Sealant is used by major aquarium manufacturers because of its high performance properties. Due to the formulation and quality control process ASI has received numerous accolades for the performance of the Aquarium Sealant. It offers advanced adhesion and higher tensile strength requirements than the standard Aquarium Sealants. ASI Aquarium Sealant is a non-slump sealant and can be applied to vertical or overhead surfaces without flowing or sagging. ASI Aquarium Silicone Sealant Adhesive is a one-part, moisture-curing RTV (room temperature vulcanizing) silicone that cures to a strong, silicone rubber that maintains long-term durability and flexibility.

Common Applications:

ASI Aquarium Silicone Sealant is ideal for many applications where an aquatic life safe, long-term, permanently flexible bond or seal is required. Such applications include:

- OEM Applications (depending on substrates)
- Aquarium Manufacturing
- Terrarium Manufacturing
- Glass Viewing Panels
- Aquarium Parts
- Aquarium Filters
- Aquarium Pumps
- Aquarium Decorations
- Terrarium Decorations
- Aquarium Reconstruction
- Etc. (Can be used for various applications depending upon substrate)

Common Bonding Substrates:

ASI Aquarium Silicone Sealant can be used on a variety of substrates that are not listed below. Please inquire or test on those substrates. We have listed some common substrates for your viewing:

- Glass
- Most Acrylics
- Aluminum
- Marble
- Metals
- Most Woods
- Most Plastics
- Porcelain
- PVC
- Steel
- Etc. (substrates may vary depending upon application)
- ASI always recommends testing on your specific substrates. Substrates can vary with manufacturers.



Directions:

ASI Aquarium Silicone Sealant is ready to use and requires no mixing or additives. The cure mechanism begins as soon as the sealant comes in contact with the air. At conditions of 25°C (77°F) and 50% relative humidity, the sealant will skin in 10 minutes and fully cure in 24 hours (1/8" bead) and reaches its maximum adhesion in 7 days. Higher humidity accelerates curing. Tooling, if necessary, should be done before skinning takes place. In applications where partial or total confinement of sealant is prevalent, the time required for proper cure is generally lengthened by the degree of confinement.

Listed Properties:

<i>Uncured</i>	
Color.....	Clear
Tooling Time, Min.....	5-7
Tack Free Time, Min.....	10 Min.
Cure Time at 77oF and 55% (RH ¼" thickness).....	24 Hours
Flow, Sag or Slump.....	Nil
<i>Cured Physical</i>	
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

Surface Preparation:

All surfaces should be clean and dry. Allow surface to dry thoroughly before applying sealant. Do not solvent wipe with alcohols or oil-containing solvents such as Varsol. Priming for ASI Aquarium Silicone Sealant is not normally required for applications to nonporous surfaces. Unprimed adhesion can be easily tested by applying a small trial bead and allowing 7 days for maximum adhesion to occur. If primer is required, contact ASI.

Colors:

ASI Aquarium Sealant colors are clear and black. Call for price and availability.

Packaging:

ASI Aquarium Grade Silicone is supplied in: (10.2 fl. oz.) caulking cartridge, (40 lb.) pail and (440 lb.) drum.

Special Packaging Available upon requests.

Safety Precautions:

ASI Aquarium 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 Aquarium Silicone Sealant , when stored in original, unopened container at or below 32°C (90°F), has a shelf life of 12 months from date of shipment.

WATER IMMERSION		
TYPICAL LAP SHEAR STRENGTH		
100% COHESIVE FAILURE IS OPTIMAL		
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 (Excellent)
7	209	100% Cohesive (Excellent)
90	206	100% Cohesive (Excellent)
180	208	100% Cohesive (Excellent)
300	203	100% Cohesive (Excellent)

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.

Information on this data sheet can change without notice and it is therefore not recommended that these figures be used in spec writing. If you have any questions contact manufacturer.