



509 AQUARIUM SEALANT

TECHNICAL DATA SHEET



WATER TIGHT



SOLVENT-FREE



UV RESISTANT

ASI 509 Aquarium Silicone Sealant is a one-part, RTV Silicone. It cures into a durable, long-term rubber that is aquatic life safe. Due to its exceptional tensile, elongation and tear strength it has been used for decades by leading aquarium manufacturers in production use as well as repair. ASI 509 Aquarium Sealant has excellent clarity and offers excellent primerless adhesion to glass. ASI 509 Aquarium Sealant can be used in both saltwater and freshwater tanks to create a waterproof seal. Because it is a thick sealant, it can be applied to vertical and overhead applications without sagging or slumping.

CONFORMS, MEETS & EXCEEDS

- FDA Regulation No. 21 CFR 177.2600
- VOC Compliant (23 grams/liter ASTM D2369)

COMMON BONDING SUBSTRATES:

ASI 509 Aquarium Sealant can be used on a variety of substrates. Please inquire or test your substrates before use. Substrates may vary with manufacturer. We have listed some common substrates:

- Glass
- Most Acrylics
- Aluminum
- Metals
- Most Types Of Woods
- Some Plastics
- Porcelain
- PVC
- Steel

Can be used on additional substrates not listed. End user is responsible for testing specific environment or substrate prior to use. Substrates may vary by manufacturer.

COMMON APPLICATIONS:

ASI 509 Aquarium Silicone Sealant is ideal for many applications where an aquatic life safe, long-term, permanently flexible bond or seal is required.

Common applications include:

- Aquarium Manufacturing
- Terrarium Manufacturing
- Glass Viewing Panels
- Sealing/Bonding Aquarium Filters
- Aquarium Repair
- Terrarium Repair

Can be used for other various applications depending upon substrate. Test all substrates before use.

FEATURES

- 100% Aquarium Safe RTV Silicone
- Aquatic Life Safe
- Made For Aquarium Manufacturing & Repair
- Excellent Adhesion & Clarity
- Creates A Durable, Waterproof Seal
- Excellent Tensile Strength & Versatility
- One-Part, Easy To Use & Tool
- Extremely Resistant To Degrading, Non-Yellowing
- Use In Salt or Fresh Water Aquariums

Water Immersion Study: Typical Lap Shear Strength (ASTM C-961)

Days Immersed In Water	Force Required To Separate	Failure Mode (Cohesive Optimal)
1	212 (psi)	Cohesive Failure (Excellent)
7	209 (psi)	Cohesive Failure (Excellent)
90	206 (psi)	Cohesive Failure (Excellent)
180	208 (psi)	Cohesive Failure (Excellent)
300	203 (psi)	Cohesive Failure (Excellent)



Physical Properties	Test Method	Result
Viscosity	ASI Test Method	700,000 cps (Spindle 7, 4rpm)
Skin Formation Time	ASI Test Method	10 minutes (70°F, 50% RH)
Density	ASTM D1475	8.5 lbs./gal
Hardness	ASTM C661	45 (Shore A)
Tear Strength	ASI Test Method	45 (Die B, lbs./in)
Tensile Strength	ASTM D412	520 psi
Elongation at Break	ASTM D412	500%
Application Temperature	ASI Test Method	-35°F to 150°F
Gun Grade	ASI Test Method	Pass (Non-Slump)
QUV Testing	ASTM G154	Pass (10,000 hrs)
Service Temperature*	ASI Test Method	-50 °F to 400°F
Typical Cure Rate	ASI Test Method	24 hrs. (1/8" bead)

*Intermittent temperature up to 450°F. Strength will start to develop immediately and continue increasing for 7 days after application. ASI recommends testing strength and adhesion on the 7th day. ASI 509 Aquarium Sealant suggested application temperature range: -35°F to 150°F. ASI recommends waiting for full cure (7 days) prior to using the aquarium. 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's sales and technical service department.

ASI 509 AQUARIUM SEALANT

COLORS

ASI 509 Aquarium Sealant is available in clear and black. Additional colors can be available for purchase. Inquire to ASI sales staff for additional information.

PACKAGING

ASI 509 Aquarium Sealant is stocked in cartridges and drums. Additional packaging may be available upon request. Inquire to ASI sales staff for additional information.

SURFACE PREPARATION

All surfaces should be dry and clean. 100% IPA (isopropyl alcohol) or acetone can be used to clean the surface depending on the substrate. DO NOT USE petroleum based solvents. Priming for ASI 509 Aquarium Sealant is not normally required. If a primer is required, please inquire to ASI sales staff. 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.

DIRECTIONS

ASI 509 Aquarium Sealant is ready to use and requires no mixing or additives. 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. Higher temperature and higher humidity will accelerate skin & cure time. Cold temperatures and low humidity will slow down skin & cure time.

CLEAN UP

Wet adhesive can be cleaned with ASI 0240 Adhesive Remover & Cleaner. Dry sealant can be removed by abrading or scraping with aid from ASI 0240. See ASI 0240 TDS for more information.

CAUTION/SAFETY

Please refer to the SDS for the corresponding product for information regarding safety and handling.

TESTING

Test per application requirement. Allow 7 days for maximum strength to develop before testing adhesion or strength.

STORAGE

When stored at 70°F and 50% RH, ASI 509 Aquarium Sealant has a shelf-life of 12 months from date of shipment in cartridges, squeeze tubes, pails & drums. High temperature and high humidity can significantly reduce shelf-life.

LIMITATIONS

Do not store at elevated temperatures. Use only on clean surfaces free of contaminants. Cold temperature and low humidity will slow curing. Do not use on porous surfaces such as concrete, mortar or brick. This product is not paintable.

WARRANTY LIMITATIONS

The information and data contained herein is believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since the supplier cannot know all the uses, or the conditions of use to which these products may be exposed, no warranties concerning the fitness or suitability for a particular use or purpose are made. It is the user's responsibility to thoroughly test any proposed use of our products and independently conclude satisfactory performance in the application. Likewise, if the application, product specifications or manner in which our products are used requires government approval or clearance, it is the sole responsibility of the user to obtain such authorization. Because the storage, handling and application of the material is beyond ASI's control, we can accept no liability for the results obtained. ASI's sole limited warranty is that the product meets the manufacturing specifications in effect at time of shipment. There is no warranty of merchantability or fitness for use, nor any other express or implied warranty. ASI will not be liable for incidental or consequential damages of any kind. The exclusive remedy for breach of such limited warranty is a refund of purchase price or replacement of any product shown to be other than as warranted. Suggestions of uses should not be taken as inducements to infringe upon any patents.



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