



American Sealants, Inc.

"High Performance Silicones, Sealants, and Adhesives"

ASI 306 Electronic Grade Self-Leveling Silicone

PRODUCT DATA SHEET

OEM Industrial Product

Features:

- Safe for Use On or Around Electronics
- High Performance, Excellent Adhesion
- Resistant to UV degradation and Weathering
- Ready to Use, One Component
- Does Not Contain Acetic Acid or Solvents
- Low Odor, Non Corrosive
- Low Compression Set and Excellent Oil Resistance

Additional Benefits:

- Contains No Solvents or Isocyanates which makes ASI 306 VOC Compliant
- Flowable, Self-leveling Silicone Which Fills Voids
- Ideal For Encapsulating, Sealing, Bonding, Etc.
- No Negative Outgassing Effects

Description:

ASI 306 Electronic Grade Self-Leveling Silicone is a one component, RTV (room temperature vulcanizing) product that is free of solvent based additives which allow for it to be used around sensitive materials including electronics. No acetic acid or other corrosive by-products are generated during its cure. Thus ASI 306 can be used in corrosion-sensitive electrical and/or electronic equipment with no adverse effect. Supplied ready-to-use, ASI 306 cures at room temperature to form a tough, high-modulus rubber. ASI 306 has excellent unprimed adhesion to a very wide range of substrates including metals (i.e. chrome), glass, most woods, ceramics and various plastics. Because ASI 306 is a 100% silicone sealant, it resists weathering, moisture, vibration, ozone, ultra-violet and temperature extremes. ASI 306 remains flexible from -45°C to +200 °C.

Common Applications:

ASI 306 is an excellent sealant and/ or adhesive for many Commercial, Industrial, and Construction applications where a long-term, permanently flexible bond or seal is required. Such applications include:

- OEM Applications (depending on substrates)
- Circuit Board Protection
- Electronic Encapsulating
- Sealing Lead Wire Entries
- Component Mounting
- General Industrial Applications
- Electrical Connections
- Waterproofing Electronics
- Adhering Electronics
- Sealing and Bonding Electronics
- Engine Components
- Telecommunications Including Coaxial Cable Connectors
- Etc. (Can be used for various applications depending upon substrate)

Common Bonding Substrates:

ASI 306 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:

- Aluminum
- Porous substrates (concrete, mortar, brick)
- Glass
- Rubber
- Metals
- Most Woods
- Most Plastics
- Porcelain
- PVC
- Vinyl
- Steel
- Etc. (substrates may vary depending upon application)



Directions:

ASI 306 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 30 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.

Surface Preparation:

All surfaces should be clean and dry. If necessary bonding surfaces can be solvent wiped with naphthas, ketones or chlorinated solvents. Specific solvents would include xylol, toluol and mineral spirits. In case of plastics, determine suitability of solvent prior to use. Allow surface to dry thoroughly before applying sealant. Do not solvent wipe with alcohols or oil-containing solvents such as Varsol. Priming for ASI 306 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.

Listed Properties:

Uncured:	
Type.....	One-part, self-leveling RTV
Appearance.....	Smooth, thick liquid
Specific Gravity.....	Clear 1.02 – Colors 1.04
Application Temperature Range.....	-18°C to +50°C (0°F to 120°F)
Cure method.....	Neutral, non-corrosive, moisture cure
Skin Over Time.....	40 minute Stop
Cure Time.....	24 Hours (1/8 thickness)
Slump/Sag	Flowable
Cured:	
<i>at 25°C (77°F) and 50% R.M. for 7 days (1/8" thick)</i>	
Durometer Hardness (Shore A)	(ASTM D 2240) 25
Tensile Strength (ASTM D 412)	230 psi (1.6 MPa)
Elongation at Break (ASTM D 412)	400%
Tear Resistance (ASTM D 624, Die B)	26 ppi (4.6 kN/m)
Temperature Range After Cure	-57°C to +204 C (-70°F to +400°F)
Shrink Factor	Nil
Thermal Expansion Coefficient	9 x 10 ⁻⁶ 1/K
	0 C to 100°C (32°F to 212°F)
Electrical Properties	
Dielectric Strength (ASTM D 149)	452 V/mil (173 KV/cm)
Volume Resistivity (ASTM D257)	>2.19 x 10 ohm/cm
Dissipation Factor (ASTM D 150)	0.00106 at 100 Hz
	0.00022 at 10kHz
Dielectric Constant (ASTM D 150)	2.71 at 100 Hz
	2.71 at 10 kHz

MILITARY SPECIFICATIONS:

ASI 306 meets the requirements of MIL 46106 Type 2.

Colors:

ASI 306's colors are clear and black. Special colors are available upon request. Call for price and availability.

Packaging:

ASI 306 is supplied in: (10.2 fl. oz.) caulking cartridge, (40 lb.) pail and (440 lb.) drum. Special Packaging Available upon requests.

Safety Precautions:

On direct contact, uncured sealant may irritate eyes. Flush eyes well with water and call a physician. Avoid prolonged contact with skin.

Storage:

ASI 306, when stored in original, unopened container at or below 32°C (90°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.

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.