American Sealants, Inc.

"High Performance Silicones, Sealants, and Adhesives"

ASI 505 Industrial Grade Self-Leveling Silicone

PRODUCT DATA SHEET

OEM Industrial and Construction Product

Features:

- 100% Silicone Sealant, No Solvents
- High Performance, Excellent Adhesion
- Resistant to UV degredation and Weathering
- Self-Leveling Liquid RTV
- Extremely Flexible and Durable
- Bonds to a Variety of Common Substrates
- One Component, Easy to Use

Additional Benefits:

- Contains No Solvents or Isocyanates which makes ASI 505 VOC Compliant
- Easy to Dispense and work with at a Variety of Extreme Temperatures
- Withstands a wide range of high heat and extreme cold
- Fast Tack Free Time -10 minutes

Description:

ASI 505 Industrial Grade Self-Leveling Silicone Sealant is a one-component, RTV (room temperature vulcanizing), free-flowing sealant designed for a variety of potting, coating and sealing applications. ASI 505 cures to form a tough high modulus rubber. ASI 505 has excellent unprimed adhesion to a very wide range of substrates, including metals, glass, most woods, ceramics and many plastics. Because ASI 505 is a 100% silicone sealant, it resists weathering, moisture, vibration, ozone, ultraviolet and temperature extremes. In addition, it stays flexible from -57°C to +204°C (-70 F to +400°F).

Common Applications:

ASI 505 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)
- RV Construction
- Encapsulating
- Sealing and Waterproofing
- Potting Components
- Coating Assemblies
- General Industrial Applications
- Metal Building and Portable Housing Applications
- Etc. (Can be used for various applications depending upon substrate)

Common Bonding Substrates:

ASI 505 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
- Ceramics
- Glass
- Metals
- Most Plastics
- PVC
- Steel
- Etc. (substrates may vary depending upon application)

Directions:

ASI 505 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.

Surface Preperation:

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 505 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-levelling RTV
Appearance	Smooth thick liquid
Specific Gravity	Clear 1.02; Colors 1.04
Application Temperature Range	-18°C to +5O°C (0°F to +120°F)
Cure Method	Acetoxy, moisture cure
Skin Over Time	15 minutes
Cure Time	24 hours (1/8" thickness)
Slump/Sag	Flowable
Viscosity	Approx. 45,OOOcP
CURED:	
at 25°C (77°F) and 50% R.H. for 7 days (1/8" thickness)	
Durometer Hardness (Shore A) (ASTM D 2240)	30
Tensile Strength (ASTM D 412)	220 psi (1.5 MPa)
Elongation at Break (ASTM D 412)	225%
Tear Resistance (ASTM D 624, Die B)	18 ppi (3.2 kN/m)
Temperature Range After Cure	-57°C to +204°C (-70°F to +400°F)
Shrink Factor	Nil
Thermal Expansion Coefficient	9 x 10^4 1/K
0° to 100°C (32°F to 212°F)	
Dielectric Strength (ASTM D 149)	500 volts/mil (215 kV/cm)
Volume Resistivity (ASTM 0 257)	1 x 10^{15} ohm/cm
Dissipation Factor (ASTM D 150)	0.002 at 100 Hz
	0.002 at 10 kHz
Dielectric Constant (ASTM D 150)	2.60 at 100 kHz
	2.60 at 10 kHz

MILITARY SPECIFICATIONS:

ASI 505 meets the requirements of MIL-A-46l06A Type II.

Storage:

ASI 505, when stored in original, unopened container at or below 32°C (90°F), has a shelf life of 12 months from date of shipment.

Colors:

ASI 505's colors are clear and black. Special colors are available upon request. Call for price and availability.

Packaging:

ASI 505 is supplied in:
(10.2 fl. oz.) caulking cartridge,
(4.5 gal) pail and (53 gal) drum.

Special Packaging Available upon requests.

Safety Precautions:

ASI 505 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.

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 recommened that these figures be used in spec writing. If you have any questions contact manufacturer.