American Sealants, Inc.

"High Performance Silicones, Sealants, and Adhesives"

ASI 388 Electronic Grade Silicone

PRODUCT DATA SHEET

OEM Industrial and Commercial Product

Features:

- Safe for Use On or Around Electronics
- High Performance, Excellent Adhesion
- Resistant to Electrical Tacking
- Excellent Dielectric Properties
- Adheres to Various Substrates
- Low Odor, Non Corrosive
- Does Not Corrode by Outgasing

Additional Benefits:

- Contains No Solvents or Isocyanates Which Makes ASI 388 VOC Compliant
- UL Approved for Horizontal Burn
- UL Approved for Mechanical Adhesion and Other Similiar Properties
- Fast Tack Free Time

Description:

ASI 388 is a one-part, moisture- curing RTV (room temperature vulcanizing) silicone sealant adhesive that is non-slump and cures to form a tough, permanently flexible rubber. The non-corrosive curing system of ASI 388 makes it ideally suited for protecting, sealing and insulating corrosion-sensitive electronic and electrical materials such as copper, brass, silver, etc. ASI 388 has been specifically formulated for use in electrical/electronic production and assembly because it has high surface resistivity and repels water to protect electrical properties. ASI 388 is a neutral-cure silicone that emits no objectionable odors during cure and is ideally suited for use in confined areas. However, adequate ventilation should be provided when ASI 388 is used in large-scale production. ASI 388 is a 100% silicone and has excellent resistance to ozone, UV, airborne chemicals and temperature changes from -57 C to +204°C (-70°F to +400°F)

Common Applications:

ASI 388 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 388 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)

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Directions:

ASI 388 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 388 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:

Characteristics	Test Method	Results
Shore A Hardness	ASTM D2240	30+2
Tensile @ Break	ASTM D412	250+25 psi
Elongation @ Break	ASTM D412	400+25 %
Modulus © 100% Elongation	ASTM D412	90+10 psi
Tear Strength	ASTM 624 (Die B)	30 +10 psi
Adhesion Strength (Peel)	TT-S-001 543, 3.5.9.	
Glass		10+2 ppi
Aluminum Primed		8+2 ppi
Mortar (Primed)		12+2 ppi
Sag, or Slump	TT-S-001 543, 3.5.2	Nil
Shrinkage (Weight Loss)	TT-S-001 543, 3.5.5	<5%
Extrusion Rate	1/8" orifice, © 50 psi	130+5 gm/mm
Service Temperature Range	- - -	-18°C to +50°C
Tack Free Time	TT-S-001 543, 3.5.6	10-20 minutes
Cure Time (1/8" Bead)	- - -	24 Hours
Cure Time –Ultimate Strength		7 Days
Joint Movement Capability	4:1 Safety Factor	+25%
Chemical Resistance	List Available	Excellent
Color Retention	- - -	Excellent
Weatherability	- - -	Excellent
Reactivity of Byproducts		Non-Corrosive to Most substrates
Electrical Properties @72°F (22°C)		
Dissipation Factor	ASTM D150	50 Hz – 0.0009 1kHz-0.0004 1 MHz – 0.0002
Dielectric Constant	ASTM D150	50 Hz – 2.7 1 kHz-2.7 1 MHz – 2.7
Volume Resistivity, .cm	ASTM D257	2 x 1014
Surface Resistivity,	ASTM D257	3 X 1016
Dielectric Strength, KV/mm	ASTM D149	18

MILITARY SPECIFICATIONS:

ASI 388 meets the requirements of MIL 46106 Type 1.

Colors:

ASI 388's colors are clear, black and white. Special colors are available upon request.

Call for price and availability.

Packaging:

ASI 388 is supplied in:
(10.2 fl. oz.) caulking cartridge,
(40 lb.) pail and (440 lb.) drum.

Special Packaging Available upon request.

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