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Product Data

ASI 388 Electronic Grade Sealant/Adhesive

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 good dielectric properties
- has high surface resistivity
- resists electrical tracking
- 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
- temperature changes from -57 C to +204°C (-70°F to +400°F)

TYPICAL USES

ASI 388 is an excellent sealant/adhesive for many electrical and electronic applications where corrosion to metals, particularly copper, brass, silver, etc., is a problem. Such applications include:

- lead-wire entries
- conduit terminal boxes
- component mounting
- electrical connections
- conduit ends
- splices
- cover plates
- coaxial cable connectors
- printed circuit boards
- conductor entry holes

SURFACE PREPARATION

All surfaces should be clean and dry. It is recommended that bonding surfaces be solvent wiped with oil-free solvents, such as xylol, toluol naphtha or non-flammable chlorinated solvents. Do not wipe with oil-based solvents such as Varsol. Allow surface to dry thoroughly before applying sealant.

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 15 minutes and fully cure within 48 hours (1/8 bead).

Higher humidity accelerates cure. Tooling should be done before skinning takes place.

In applications where partial total confinement of sealant is prevalent, the time required for proper cure is lengthened by the degree of confinement.

PRIMING

Priming of ASI 388 is normally not required for application to most substrates.

Unprimed adhesion can be readily tested by applying a small trial bead and allowing 7 days for maximum adhesion to occur.

If primer is required, contact ASI for technical assistance.

COLORS

ASI 388 is available in clear and white. Special colors are available upon request. Call for price and availability.

MILITARY SPECIFICATIONS

ASI 388 meets the requirements of MIL 46106 Type 1.

FDA STATUS

ASI 388 is permitted under regulations of the Food and Drug Administration where incidental food contact might be involved. FDA Regulation number is 177.2600.



File No. E209770

Information on this data sheet is subject to change without notice and it is therefore recommended that this information not be used for spec writing. For additional information or specific applications, contact manufacture.

CHARACTERISTIC	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 ppi
Adhesion Strength (Peel)	TT-S-001543, 3.5.9	
Glass		10±2 ppi
Aluminum (Primed)		8±2 ppi
Mortar (Primed)		12±2 ppi
Sag, or Slump	TT-S-001543, 3.5.2	Nil
Shrinkage (Weight Loss)	TT-S-001543, 3.5.5	<5%
Extrusion Rate	1/8" orifice @ 50 psi	130±5 gm/min
Service Temperature	----	-18°C to +50°C 0°F to +120°F
Tack Free Time	TT-S-001543, 3.5.6	15 Minutes
Time to Full Cure (1/8" Bead)	----	48 Hours
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 1 kHz - 0.0004 1 MHz - 0.0002
Dielectric Constant	ASTM D150	50 Hz - 2.7 1 kHz - 2.7 1 MHz - 2.7
Volume Resistivity, Ω .cm	ASTM D257	2 x 10 ¹⁴
Surface Resistivity, Ω	ASTM D257	3 x 10 ¹⁵
Dielectric Strength, KV/mm	ASTM D149	18

SAFETY PRECAUTIONS

Since ASI 388 is a neutral-cure system, no acetic or objectionable byproducts are evolved during cure. On direct contact, uncured sealant may irritate eyes. Flush well with water and call physician if irritation persists. 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.

PACKAGING

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

WARRANTY AND LIMITATIONS

ASI warrants 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.