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Product Data

ASI 306 Electronic Grade Self-Leveling Silicone Sealant/Adhesive

Description

ASI 306 Electronic Grade Self-Leveling Silicone is a one component, RTV (room temperature vulcanizing) Product which uses a new cross-linking mechanism as a curing method. 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 -60° to +200 °C (-75° to +480°F).

Typical Uses

ASI 306 is primarily used in applications where a flowable, self-leveling silicone sealant is required to fill small gaps or voids. Applications include potting electrical terminals and coating electric devices.

Since no undesirable odors are released during cure, ASI 306 is ideal where applications must be done under confined conditions. Adequate ventilation should be provided with extensive use of this product.

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. Uncured sealant will flow until a cured skin is formed.

At conditions of 25°C (77°F) and 50% relative humidity, the sealant will "skin" in 40 minutes and cure within 24 hours (1/8" thickness). Higher humidity accelerates Cure.

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. It is recommended that bonding surfaces be solvent-wiped with a naphtha, Ketone or chlorinated solvent. Suitable solvents such as Varsol. Allow surface to dry thoroughly before applying sealant.

Priming

Priming for ASI 306 is normally not required for applications to most substrates.

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

Painting

ASI 306 Should not be applied to surfaces which will be painted, as painting over sealant is not recommended. The paint film does not stretch with the extension of the sealant and the adhesion of paint to ASI 306 is not adequate.

Colors

Standard colors for ASI 306 are clear and white. Special colors are available upon request.

FDA Status

ASI 306 is permitted under regulations of the Food and Drug Administration where incidental food contact might be involved. FDA Regulation number is 177.2600.

Military Specifications

ASI 306 meets the requirements of MIL-46106 Type II.



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.

Safety Precautions

Since ASI 306 is a neutral cure system, no Acetic acid is released during cure.

However, on direct contact, uncured sealant will irritate eyes. Flush well with water and call physician if irritation persists. Avoid prolonged skin contact

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 shipments.

Packaging

ASI 306 is supplied in: (10.2 fl. oz) Caulking Cartridge; (40 lbs) Pail; and (440 lbs.) Drum.

Warranty and limitations

ASI 306 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.

Typical Properties

Uncured:

Type.....	One-part, self-leveling RTV
Appearance.....	Smooth, thick liquid
Specific Gravity.....	Clear 1.02 – Colors 1.04
Application Temperature Range.....	-18° to +50°C(0° 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:

at 25°C (77°F) and 50% R.M. for 7 days (1/8" thick)

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 ¹² 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
