

AS159

Product Description:

AS159 is a high strength, fast curing, acetoxo silicone RTV adhesive rubber developed for applications requiring fast development of physical properties and excellent adhesion.

AS159 is a 1 part high temperature silicone that when cured resists weathering, ozone, moisture and UV. AS159 works well in manual and automatic dispensing equipment.

Product Features:

- Fast Room Temperature Cure
- Thixotropic paste
- Excellent unprimed adhesion to plastic, metal glass
- Heat accelerated instant cure capability

Heat Accelerated Curing:

Typical utilization involves dispensing in open air and ambient humidity to result in a high strength adhesive rubber. However, cure speed can be accelerated with hot air to nearly instant cures exhibiting very fast adhesion. A 1 minute hot air stream exposure, followed by a 1 minute cool down in a humid environment, results in a cured elastomer condition exhibiting outstanding adhesion.

Replacement For:

GE 159, 106 and Dow DC736. Tested and conforms to requirements of MIL-A-46106 Type I Group III material.

Packaging:

Available in standard 3 oz. tubes and 10.3 oz. cartridges. Other size packaging available upon request.

Shelf-life:

Sealed containers 1 year from date of shipment when stored in a cool dry area below 70°F

High Strength Fast Cure Adhesive Sealant

Typical Properties:

UNCURED

Color:	Red
Viscosity, cps	500,000
Specific Gravity	1.14
Consistency	Thixotropic paste
Working time, mins. @ R.T.	4
Tack Free Time, mins. @ R.T.	12
Application Rate, 90 PSI, g/min.	250
Solids	98%

CURED – ROOM TEMPERATURE

Cured – 72 hrs. @ R.T.	
Tensile Strength, PSI	750
Elongation, %	850
Durometer, Shore A	38
Peel Strength, PPI	50
Tear Strength, PLI	100
Lap Shear Strength, PSI	330

Electrical

Dielectric Strength, v/mil	>500
Dielectric Constant	2.8
Dissipation Factor	0.001
Volume Resistivity, ohm/cm	2.0 x 10 ¹⁴

Thermal

Brittle Point, °F (°C)	-68 (-55)
Maximum Continuous Operating Temperature, °F (°C)	572(300)
Thermal Conductivity Btu/hr/ft ² , °F/ft	0.0005
Coefficient of Expansion in/in/°F	20 x 10 ⁻⁵

Application Instruction Sheet for **AS157 and AS159**

Clean surface and dry thoroughly. If using the optional "Tube Nozzle", cut to desired bead size. Push sealant ahead by squeezing tube for uniform bead. The paste-like consistency makes it easy to be tooled using a spatula or wooden paddle. Tooling time, approximately 5 minutes at Room Temperature. TACK FREE approximately 20 minutes at Room Temperature. Normal Room Temperature cure time is 24 hours. Length of time for a full cure depends on thickness of application and other factors including temperature and humidity. Accelerated cure may be achieved using hot air. Thin bond line sections can be heat accelerated cured using a 1 minute hot air stream exposure. Test the exposure time on a sample prior to final application.

Primerless adhesion too many metals including aluminum, stainless steel, steel, glass, ceramics and many rigid plastics. Not for use on stovepipes, fireplaces or underwater. Not for use in delicate electric or electronic applications. For industrial use only. KEEP OF REACH OF CHILDREN.

FAA PMA Approved Products

Approved Eligibility for Pratt & Whitney, Rolls Royce, Canadair, Boeing, Fokker, GE Engines,
CFM Engines, Bombardier, McDonnell, Douglas Boeing, Hamilton Sunstrand, Dowty
And Airbus
ALL MODELS



MATERIAL SAFETY DATA SHEET (MSDS)

PRODUCT: AS159 High Temperature, High Strength Silicone Adhesive Sealant

1. Chemical Product and Company Identification

Manufactured By: Silicone Solutions (SS-69 REF.)
 1670-C Enterprise Parkway
 Twinsburg, Ohio 44087

Emergency Phone: 330-405-4595

Revised: 10-12-97
Preparer: David M. Brassard
Chemical Family: Silicone Rubber
Formula: Mixture

2. Composition / Information on Ingredients

Product Composition CAS Reg. No.	Approx. % Wt.	ACGIH TWA	TLV STEL	OSHA TWA	PEL STEL	Units
A. HAZARDOUS						
NONE FOUND						
B. NON HAZARDOUS						
Polydimethylsiloxane 70131-67-8	45-60	--	NE	--	NE	NA
Dimethylpolysiloxane 63148-62-9	15-50	NE	NE	NE	NE	NA
Silica 68611-44-9	10-19	10	10	10	15	mg/m3
Methyltriacetoxysilane 4253-34-3	3.0-12.0	10	NE	10	NE	ppm
Trade Secret Component	2-8	NE	NE	NE	NE	NA
Trade Secret Component	1-5	NE	NE	NE	NE	NA
Dibutyltindilaurate	0.1-3.0	NE	NE	NE	NE	NA
Red Iron Oxide 1332-37-2	2.0-5.0	NE	NE	NE	NE	NA

3. HAZARDS IDENTIFICATION

Potential Health Effects:

Ingestion: ----- **MAY BE HARMFUL IF SWALLOWED**

Skin Contact: ----- **UNCURED PRODUCT WILL IRRITATE LIPS, GUMS AND TONGUE.**
UNCURED PRODUCT MAY IRRITATE THE SKIN.

Inhalation: ----- **CAUSES IRRITATION TO THE MOUTH, NOSE AND THROAT.**
THIS APPLIES IN THE UNCURED STATE ONLY.

Eye Contact: ----- **UNCURED PRODUCT CONTACT IRRITATES EYES.**

Medical Conditions Aggravated: ----- **NONE KNOWN**

Subchronic (TARGET ORGAN) Effects: ----- **NONE KNOWN**

Chronic Effects/Carcinogenicity: ----- **THIS PRODUCT OR ONE OF IT'S INGREDIENTS PRESENT 0.1% or MORE IS NOT LISTED OR SUSPECTED AS A CARCINOGEN BY NTP, IARC OR OSHA**

Principle Routes of Exposure: ----- **NONE KNOWN**

Other: **ACETIC ACID RELEASED DURING CURE.**
This product contains methylpolysiloxanes which can generate formaldehyde upon exposure above 300 degrees Centigrade in atmospheres which contain oxygen.
Formaldehyde is a skin, eye, and throat irritant.

4. FIRST AID MEASURES

Ingestion: -----	RINSE MOUTH WITH WATER SEVERAL TIMES
Skin: -----	REMOVE COMPLETELY WITH A DRY CLOTH OR PAPTOWEL.
	WASH WITH SOAP AND WATER.
Inhalation: -----	MOVE PERSON TO FRESH AIR.
In case of eye contact: -----	FLUSH WITH WATER FOR 15 MINUTES AND GET MEDICAL ATTENTION IF IRRITATION PERSISTS.
Note to physician: -----	NONE KNOWN

5. FIREFIGHTING MEASURES

Flash point: -----	>300°C or 600°F
Method: -----	NA
Ignition temp. -----	Unknown
Flammable limits in air - lower % -----	NA
Flammable limits in air - upper % -----	NA
Sensitivity to mechanical impact: -----	NO
Sensitivity to static discharge: -----	NO
Extinguishing media: -----	ALL STANDARD FIREFIGHTING MEDIA
Special firefighting procedures: -----	NONE KNOWN

6. ACCIDENTAL RELEASE MEASURES

Action to be taken if material is released or spilled: -----	SCRAPE-UP and PLACE IN AN INERT MATERIAL FOR DISPOSAL
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7. HANDLING and STORAGE

Precautions to be taken during handling and storage: -----	CURE ONLY WHERE APPROPRIATE VENTILATION SYSTEMS EXIST.
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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: -----	NONE KNOWN
Respiratory protection: -----	NONE REQUIRED
Protective gloves: -----	CLOTH GLOVES
Eye and face protection: -----	SAFETY GLASSES
Other protective equipment: -----	NONE REQUIRED
Ventilation: -----	CURE IN WELL VENTILATED AREAS

9. PHYSICAL and CHEMICAL PROPERTIES

Boiling point: -----	NA
Vapor pressure: -----	NA
Vapor density: -----	NA
Freezing point: -----	NA
Melting point: -----	NA
Physical state: -----	PASTE
Odor: -----	VINEGAR
% Volatile by volume: -----	<3
Evaporation rate: -----	<1
Specific gravity: -----	1.14
Density: (Kg/M3) -----	1140
Acid/alkalinity -----	SLIGHTLY ACIDIC
PH: -----	NA
VOC: -----	NT
Solubility in water: -----	INSOLUBLE
Solubility in organic solvents: -----	PARTIALLY SOLUBLE IN TOLUENE

