



D Aircraft Products Site  
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## **DAPCO™ 2900 TWO PART HIGH TEMPERATURE SILICONE SEALANT**

### **GENERAL DESCRIPTION**

DAPCO™ 2900 is a two-part, organo-modified silicone sealant with 500° F service temperature that can withstand 2000° F flame while providing adequate thermal insulation to substrates it is coated on. The product has good resistance to fluids found in the aviation environment, including phosphate ester hydraulic fluids and engine oils (MIL-L-7808, MIL-PRF-23699 HTS), and unlike conventional condensation curing silicone products will not degrade in these fluids at 150° F; it will retain its physical integrity after immersion in JRF Type VII, JP-4 and JET-A fuels. Additionally, DAPCO 2900 is formulated to be 'paint shop friendly' with no free silicone that can 'bleed out' of the cured material, in addition epoxy-based aerospace primers show excellent adhesion when applied to the sealant.

### **APPLICATIONS**

- Sealing joints against passage of fluids, air, and flame
- Sealing faying surfaces of mating parts
- Aerosmoothing on high temperature areas
- Coating for insulating
- Ablative heat shielding
- Aircraft field repair over a variety of materials
- **High temperature sealing in painted areas**

### **PHYSICAL & MECHANICAL PROPERTIES**

Color: Red

Specific gravity (g/cc): 1.4

Cure Hardness, Shore A: 65

Tensile Strength (psi) & % Elongation (ASTM D412): 450/100

Flatwise Tensile Strength (psi, ASTM D1002): 100

Peel Strength (pli, ASTM 5127/1): 7.0

Lap Shear (psi, ASTM D1002): Stainless Steel 400

Titanium 450

Thermal Insulation @ 2000° F /15 minutes, 0.05 inch coating on epoxy-primed aluminum:

Maximum temperature recorded (° F): 750

Thermal conductivity (W/mK): 0.219

No flame penetration or ignition of the sealant when tested per AS5127/2 (15 minutes direct flame impingement at 2000° F)

## **ENVIRONMENTAL EXPOSURE**

	<u>% Absorption</u>	<u>Hardness after exposure</u>
BMS 3-11 @ RT / 48 hrs immersion:	12	55 "A"
@ 160° F / 168 hrs:	25	
JRF Type VII @RT / 48 hrs immersion:	150	
JP-4 @ RT / 48 hrs immersion:	70	60 "A"
@ 120° F / 168 hrs immersion:	70	
JET-A @ RT / 48 Hrs immersion:	45	65 "A"
@ 120° F / 168 hrs immersion:	70	
MIL-PRF-23699 @ RT / 48 hrs immersion:	3	

## **SURFACE PREPARATION**

The substrate must be free from contamination, i.e. dirt, oil grease, etc. Clean the surface by wiping with a suitable solvent/cleaning agent and dry thoroughly. DAPCO 1-100 Primer is required for adhesion to most metallic substrates.

## **APPLICATION & CURING INFORMATION**

DAPCO 2900 is a 2-part sealant supplied in standard aerospace injection kits; machine mixing of the kit is recommended for optimum performance. The mixed sealant is non-slumping and can be readily applied to vertical and overhead surfaces.

Application life:	90 minutes
Cure to tack-free:	4 hours
Cure to handle:	overnight
Full cure @ RT:	7 days

Accelerated Cure: 1 hour at room temperature, followed by 2 hours at 160° F.

## **STORAGE AND HANDLING**

Store below 80° F in a dry place

Shelf life: 6 months from date of shipment @ room temperature.

## **SAFETY**

Exercise good housekeeping practices. Material Safety Data Sheets available upon request.