DAPCO™ 2100

Dapco™ 2100 is an adhesive, solvent-free, thixotropic silicone paste. Dapco™ 2100 is most commonly used as a coating, sealant, or filleting material in the construction, repair and maintenance of all types of aircraft. The product can be applied using a variety of methods and is especially useful where fire resistance, exposure to phosphate ester fluids, and/or exposure to extreme temperatures -65°F (-54°C) to 400°F (204°C) are major considerations. The product can also be used as an insulating and/or ablative heat shield. Product is available in 2.5 oz and 6 oz plastic cartridges.

Features and Benefits

- Excellent fire resistance to 3500°F (1927°C)
- Service temperature of -65°F to 400°F (-54°C to 204°C)
- Universal primerless adhesion to diverse substrates
- Offers non-inhibition curing characteristics against other sealants and adhesives
- Good resistance to aerospace chemicals
- Extended application time
- One part premixed room temperature stability
- Non-Volatile Content of 96%
- Qualified to BMS 5-63, AMS3374, BAMS 552-004, and CMNP009

CHARACTERISITICS

Table 1 | Physical Properties

Property	
Consistency	Thixotropic Paste
Viscosity	>20,000 poise (>2,000 Pa-s)
Cured Specific Gravity	1.37
Thermal Conductivity ASTM E 1225	0.224 W/m-K
Shore Hardness ASTM D 2240	Shore A: 50
Shelf Life[1]	6 months at or below 75ºF (24ºC) from mix/fill date
Shop Life[2]	30 days at or below 75ºF (24ºC) after initially opened

[1] Keep in unopened foil bags.
[2] Once opened, sealant should be recapped and placed in sealed bag between times of usage. Shop life referred to lifespan after initially opened.

Table 2 | Product Availability

Property	
Color	Grey
Kit Size	2.5 oz 6.0 oz

Table 3 | Flammability Properties of Dapco™ 2100

Property	DAPCO 2100	Substrate
Flame Resistance BMS 5-63	Self-extinguishing Time: < 2 sec Flame Penetration: None	0.050 in (1.27 mm) Titanium, TI-6AL-4V

PROPERTIES

When cured in accordance with the recommended schedule, the following typical properties are developed:

Table 4 | Mechanical Properties of Dapco™ 2100

Property	DAPCO 2100	Substrate
Lap Shear Strength ASTM D 1002 Control 7 days at 400°F (204°C) 7 days ay 120°F (49°C) & 100% R.H. 7 days is Skydrol® Hydraulic Fluid	psi (MPa) 350 (2.4) 350 (2.4) 350 (2.4) 280 (1.9)	0.050 in (1.27 mm) Included: Stainless Steel, Titanium, Aluminum (bare), and Aluminum (bare) Primed
Floating Roller Peel ASTM D 3167	lb/in (kN/m) 20 (3.5)	0.025 in (0.63 mm) and 0.064 in (1.63 mm) Aluminum

PROCESSING

HANDLING

Tack Free Time

10 – 15 min.

APPLICATION

Applying

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. Handling strength is achieved in 24 hours at 75°F (24°C) (loads on the product should be limited until full cure is achieved).

Curing

Dapco™ 2100 is generally cured at ambient temperatures above 55°F (13°C). Moisture helps develop final properties (a relative humidity ranging between 30% - 70% is preferred). Optimum physical properties are developed when the product is cured a minimum of seven days for sealing applications, and 14 days for faying surface applications at 75°F (24°C) and 50% R.H.

Cure may be inhibited by proximity or contact with a variety of materials including old RTV silicone sealant of the tin-cure variety, polysulfide, sulfur, amine and amide compounds, natural, nitrile or other organic rubbers, paper masking tape, plasticizers, lubricants, release agents or solvents.

Cleanup

Before the material has cured, the excess may be removed using commercial solvent. For optimum removal of silicone residue prior to paint or coating application, Dapco™ 2000 diluent is recommended.

HEALTH & SAFETY

Please refer to the product SDS for safe handling, personal protective equipment recommendations and disposal considerations.

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