



APTEK LABORATORIES, INC.

ISO 9001 / AS9100 Certified

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TECHNICAL DATA & INFORMATION

APTEK® 2300-PMF

Premixed-frozen, low modulus, hybrid urethane, re-enterable encapsulant

PRODUCT DESCRIPTION

APTEK 2300-PMF is a one component, premixed-frozen, mineral-filled, electrically insulating soft paste designed to encapsulate and adhere to many dissimilar substrates. **APTEK 2300-PMF** is a 100% solids, solvent free system that will not form voids during cure or outgas after being fully cured.

APTEK 2300-PMF is a system which has outstanding reversion resistance and physical stability when subjected to high heat and humidity environments. This system displays higher ionic purity than epoxy systems minimizing the possibility of corrosion on components and circuitry.

KEY FEATURES AND BENEFITS

- Low modulus/high elongation for minimum stress to sensitive components and ceramic substrates
- Low Tg for excellent low temperature cycling and performance
- Excellent substrate adhesion; superior to silicones
- Re-enterable for repair applications - save costly devices/PC boards
- Exceeds NASA outgassing requirements for high vacuum environments

HANDLING INFORMATION

Work life @ 25°C in 30cc syringe after thaw: >4 hrs

1. APTEK 2300-PMF syringes are shipped in dry ice. Upon receipt, immediately transfer frozen syringes to a storage freezer @-40°C or below.
2. To thaw remove from freezer and allow to warm to room temperature. Do not place in oven or microwave- this will shorten use life.
3. Typical thaw time for 10cc syringe @25°C ambient is approximately 15-30 minutes; thaw time for 30cc syringe is ~ 30-60 minutes.

CURE SCHEDULE

3 hours at 100°C

- DISCLAIMER NOTICE -

All statements, technical data, and recommendations expressed herein are based on tests believed to be reliable and accurate. However, APTEK LABORATORIES, INC. gives no warranty, expressed or implied, regarding the accuracy of this information. It is intended that the buyer and user of these products shall determine the suitability of the information provided for his specific application, and is responsible for its selection.

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TYPICAL PROPERTIES

(Values not to be used for specification purposes)

<u>CHARACTERISTICS</u>	<u>APTEK 2300-PMF</u>	<u>TEST METHOD</u>
Color	Tan	Visual
Specific gravity	1.33	ASTM D-1475
Viscosity @25°C, initial cps	200,000	ASTM D-1824
Flash point, °C	>200	ASTM D-92
Shelf life @-40°C, months factory sealed, pre-mixed frozen-syringes	6	

<u>CURED PHYSICAL PROPERTIES</u>	<u>APTEK 2300-PMF</u>	<u>TEST METHOD</u>
Hardness, Durometer A	78	ASTM D-2240
Lap shear, @25°C, Al to Al, psi	400	ASTM D-1002
Elongation, %	75	ASTM D-412
Glass transition temp., °C	-70	ASTM E-831

<u>CURED ELECTRICAL PROPERTIES</u>	<u>APTEK 2300-PMF</u>	<u>TEST METHOD</u>
Volume resistivity @25°C, ohm-cm	8.0×10^{15}	ASTM D-257
Dissipation factor (D) @25°C KHz	0.015	ASTM D-150
Dielectric constant (K) @25°C KHz	3.0	ASTM D-150
Dielectric strength, 0.125" thick, volts/mil	390	ASTM D-149

SAFETY AND FIRST AID

APTEK 2300-PMF is a mineral-filled hybrid polymer blend which is safe to handle as it is packaged in sealed syringes. There should be no need to touch the adhesive. Avoid contact with skin and eyes and use in a well-ventilated area and avoid breathing vapors. In case of eye contact, flush with fresh clean water for at least 15 minutes; for skin contact, wash thoroughly with soap and water. If ingested, drink at least one pint of water and call a physician. Refer to Material Safety Data Sheet for more details.

Latest revision: 7-30-24mjv

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