

APTEK LABORATORIES, INC.

ISO 9001 / AS9100 Certified

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TECHNICAL DATA & INFORMATION

APTEK[®] 6527-A/B

Low CTE, low outgassing, syntactic foam compound

PRODUCT DESCRIPTION

APTEK 6527-A/B is a light weight, rigid, filled, dark gray, two component, room-temperature curing, epoxy syntactic foam.

APTEK 6527-A/B is a 100% solids, solvent-free system that will not outgas during cure or after being fully cured.

KEY FEATURES AND BENEFITS

- Non-flow paste consistency for repair of vertical surfaces
- Trowelable for edge filling and repair of cracks, scratches, and defects. Also useful for the densification of honeycomb cores.
- Capable of complete cure at room-temperature to eliminate the need for ovens
- Excellent adhesion to syntactic and various metal surfaces
- Qualified to Boeing Spec SCGMS 58001& Lockheed Spec STM M1130
- Exceeds NASA outgassing requirements for high vacuum environments

HANDLING INFORMATION

Mix ratio, parts by weight: 3 (6527-1) / 1 (6527-B)

Work life, 100 gms @25°C, minutes:

MIXING

60

1. Filler and resin will separate during shipment/storage in parts A and B. Be sure each part is thoroughly homogenized prior to weighing and mixing parts A and B together.

2. Weigh 3 parts of APTEK 6527-A into a clean, dry metal or plastic container and then add 1 parts of APTEK 6527-B. Hand mix slowly with metal spatula until complete and thorough blending is achieved.

CURE SCHEDULE

5-7 days @ 25°C or RT gel + 2 hours @ 65°C

Notes:

1. For optimum results when heat curing, allow product to gel at room temperature for a minimum of 8 hours prior to heat cure. Foaming may occur if product is heat cured immediately.

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TYPICAL PROPERTIES

(values not to be used for specification purposes)

CHARACTERISTICS	<u>6527-A</u>	<u>6527-B</u>	TEST METHOD
Color	dark gray	dark gray	Visual
Viscosity, @25°C,cps	thick paste	thick paste	Visual
Flash point, °C	>150	>150	ASTM D-92
Shelf life, @25°C or below Months in factory sealed contair	ners 12	12	
CURED PHYSICAL PROPERT	IES	<u>6527-A/B</u>	TEST METHOD
Compressive Strength, psi		6000	ASTM D-695
Cured color		dark gray	Visual
Cured specific gravity		0.67 max	ASTM D-1475
Hardness, Durometer D		72	ASTM D-2240
Glass transition temp., °C*		92°C	ASTM E-831
Thermal coefficient of expansion in/in/°C alpha alpha 2	l	34 x 10 ⁻⁶ 46 x 10 ⁻⁶	ASTM E-831
Glass transition temp., °C**		96°C	ASTM E-831
Thermal coefficient of expansion in/in/°C alpha alpha 2	l	30 x 10 ⁻⁶ 40 x 10 ⁻⁶	ASTM E-831
Glass transition temp., °C***		120°C	ASTM E-831
Thermal coefficient of expansion in/in/°C alpha alpha 2	l	30 x 10 ⁻⁶ 40 x 10 ⁻⁶	ASTM E-831
Water Absorbtion**** Post bake 1 hr @ 125°C		0.36% 0.00%	
Outgassing @ 10 ⁻⁶ Torr TML, % CVCM, %		0.71 0.03	ASTM E-595 ASTM E-595
* Cured 24 hrs @ R.T. + 2 hrs @ 65° C			

** Cured 24 hrs @ R.T. + 1 hr @ 65° C + 2 hrs @ 121.1°C *** Cured 24 hrs @ R.T. + 1 hr @ 65° C + 2 hrs @ 121.1°C + 2 hrs @ 175°C

**** 2 hour boil in deionized water

SAFETY AND FIRST AID

APTEK 6527-A is a filled epoxy resin that is safe to handle when used properly. It is judged to be low in toxicity and to be rated as a slight skin irritant. 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 swallowed, drink at least one pint of water and call a physician. Refer to Material Safety Data Sheet for more details.

APTEK 6527-B is a filled polyamine blend which may cause severe eye and skin irritation with direct contact. Avoid skin and eye contact. For eye contact, flush profusely with fresh clean water and contact physician. For skin contact, wash thoroughly with soap and water. If inhaled, move subject to fresh air and provide fresh water to drink. If swallowed, dilute with at least one pint of water and contact physician immediately. Avoid prolonged breathing of vapors; may cause coughing and chest discomfort. Please note that the probability of physical injury caused by this material substantially decreases when supplied in small pre-measured kits. Refer to Material Safety Data Sheet for more details.

Revised: 04/19/2011- di Issued: 5/19/04**APTEK**[®] is a registered trademark of Aptek Laboratories, Inc.