



APTEK LABORATORIES, INC.

ISO 9001 / AS9100 Certified

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PRELIMINARY TECHNICAL DATA & INFORMATION

APTEK® 6533TK-A/B

- Semi-rigid, insulative epoxy adhesive
- RT cure; high strength
- General purpose use
- Convenient 1:1 pbv tube kit packaging

PRODUCT DESCRIPTION

APTEK 6533TK-A/B is a filled, gray, two component, semi-rigid, high strength, electrically insulating paste adhesive. It is specifically designed to fully cure at room temperature or can be accelerated with moderate heat. This is 100% solids, solvent free system that will not form voids during cure or service life.

APTEK 6533TK-A/B was designed to maintain its thixotropic, low-sag consistency throughout its' work life for uniform bonding and staking of components.

KEY FEATURES AND BENEFITS

- Moderately thixotropic mixed consistency to provide ample wetting of compounds, yet has minimum sag on vertical surfaces with the ability to hold components and wires in place during cure.
- Capable of complete room temperature cure for applications where heat cure is not desired or possible.
- Reaches 85% of cured physical properties in 48 hours at 25°C (77°F).
- Contains no diluents or solvents to minimize formation of voids during cure.
- Packaged in 1:1 pbv tube kits for field applications and general purpose use
- Long work-life for large area applications

HANDLING INFORMATION

Mix ratio, parts by volume	1:1
Work life @ 25°C (77°F), 20g mass, hrs	2
Shelf life @ 25°C, in factory sealed containers, months	12

Handling Notes:

- Store tube kits of APTEK 6533TK-A/B at 20 - 30°C (68 - 86°F)

- Part B is sensitive when exposed to moisture and air, and may dry out if container if cap to tube kit is left off for prolonged period of time. If crusting occurs at tube kit opening, squeeze out small amount and discard.

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SURFACE PREPARATION

- Thoroughly clean surface area with detergent (Ajax), water, and scouring pad (Scotchbrite) to remove all dirt, grease, or wax.
- Using 40-60 grit sandpaper, thoroughly sand all surfaces to be bonded.
- Clean all parts with a solvent such as methyl ethyl ketone (MEK), isopropyl alcohol (IPA) or toluene.
- All substrate surfaces must be dry before applying adhesive.
- Apply adhesive to all substrate surfaces to be bonded.

MIXING INSTRUCTIONS

- Use equal amounts of part A (white) and part B (black). Note using excess hardness will not accelerate cure.
- Thoroughly mix part A and part B with mixing stick supplied on a clean, dry, flat mixing surface.
- Note: fully mixed adhesive is a uniform gray color with no black or white streaks.

CURE SCHEDULE

7 days @ RT*
or
3 hrs @ 65°C

*Note: Greater than 85% of physical properties are achieved in 48 hrs at RT

TYPICAL PROPERTIES

(Values not to be used for specification purposes)

<u>CHARACTERISTICS</u>	<u>6533TK-A</u>	<u>6533TK-B</u>	<u>TEST METHOD</u>
Color	White	Black	Visual
Specific gravity	1.21	0.98	ASTM D-1475
Viscosity, @25°C, cps	Smooth thixotropic paste	Smooth thixotropic paste	ASTM D-1824
Flash Point, °C	>125	>125	ASTM D-92

<u>CURED PHYSICAL PROPERTIES</u> (Cure: 3 hrs @ 65°C)	<u>APTEK 6533TK-A/B</u>	<u>TEST METHOD</u>
Hardness, Durometer D	81	ASTM D-2240
Hardness after 1 hr soak		
IPA	81	
Acetone	81	
Lap shear, Al to Al, psi * ½ inch overlap (5 mil bondline) @25°C	3500	ASTM D-1002
* Ajax Oxygen bleach scrub + 60 grit scuff + IPA rinse		

ELECTRICAL PROPERTIES

Dielectric strength VDC/Mil @ 0.040 inches	450	ASTM D-149
Volume resistivity ohm-cm @ 25°C	3.5×10^{15}	ASTM D-257
Dissipation factor @ 1MHZ @ 25°C	0.040	ASTM D-150
Dielectric constant @ 1MHZ @ 25°C	3.3	ASTM D-150

SAFETY AND FIRST AID

APTEK 6533TK-A is an epoxy resin considered safe to handle when used properly. 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, do not induce vomiting, drink at least one pint of water and call a physician. Refer to Material Safety Data Sheet for more details.

APTEK 6533TK-B is an amine curing agent considered a slight irritant however, may cause eye and skin irritation on prolonged and repeated exposure. Inhalation of vapors may be harmful in large amounts. Avoid skin and eye contact and use in a well-ventilated area. In case of eye contact or skin contact, flush profusely with water. If swallowed, do not induce vomiting, dilute with at least one pint of water and contact physician. Refer to Material Safety Data Sheet for more details.

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