APTEK LABORATORIES, INC.
ISO 9001 / AS9100 Certified

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PRELIMINARY

TECHNICAL DATA & INFORMATION

APTEK® 6115-PMF

Optoelectronic Encapsulant for IR Devices

PRODUCT DESCRIPTION

APTEK 6115-PMF is a one component, unfilled, dark brown, rigid system designed for the encapsulation of IR LED chips in OPTO devices. **APTEK 6115-PMF** provides excellent environmental protection and when casted becomes the lens portion of the device designed to be transparent to IR light while blocking out visible light and therefore appears black when cast in mass.

KEY FEATURES AND BENEFITS

- High purity system to minimize potential of corrosion to die and lead frame surfaces.
- When cured, fully compatible with APTEK 6114-2-PMF

HANDLING INFORMATION

Work life after thaw, 0.5 gram mass in a 3cc syringe @ 25°C, hours (adversely affected by heat and humidity)	2*
Gel time, 3 gram mass, 125°C, minutes	5-7

*Material does not gel and viscosity remains relatively stable for this time-period and ambient conditions

1. Syringes are shipped in dry ice. Upon receipt, 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 as this will shorten work-life.
3. Typical thaw time for 0.5cc of material packaged in a 3cc syringe @ 25°C ambient temperature is approximately 5-10 minutes.
4. For partial syringes used which have been exposed to RT conditions for up to half of its work-life, the syringe may be refrozen and rethawed and reused at another time for the remaining unused portion of its work-life.

CURE SCHEDULES*

2 hours @ 150°C

*Note: The user should confirm the proper cure schedule for individual application requirements.

TYPICAL PROPERTIES

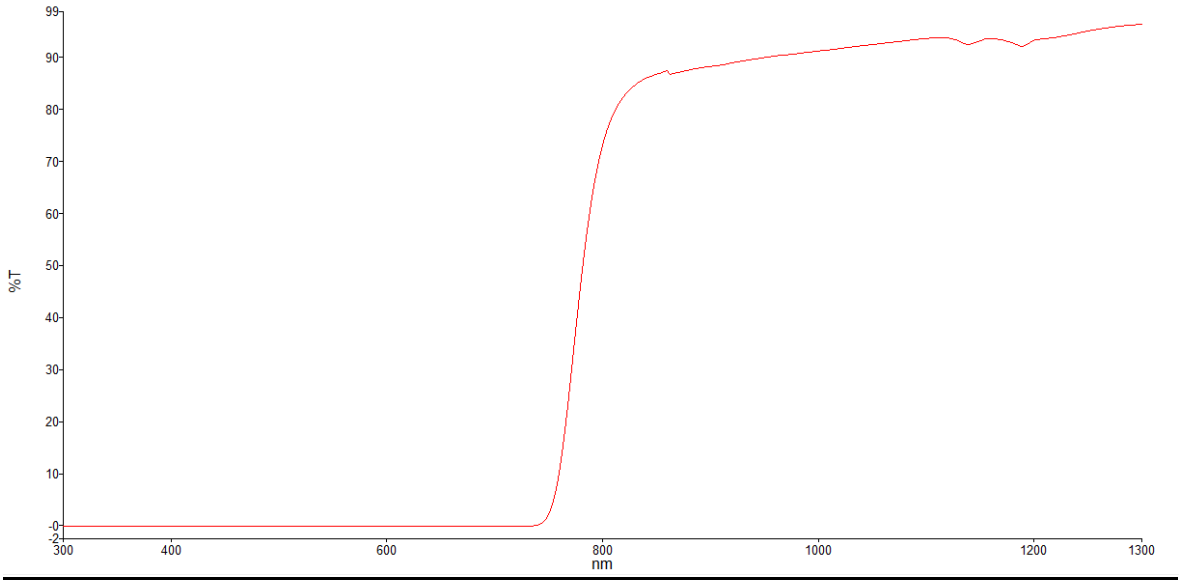
(values not to be used for specification purposes)

CHARACTERISTICS	6115-PMF	TEST METHOD
Color	Dark brown	Visual
Specific gravity	1.13	ASTM D-1475
Viscosity @ 25°C, cps	Thixotropic liquid	ASTM D-1824
Flash point, °C	>200	ASTM D-92
Shelf life, months @ ≤ -40°C, factory sealed containers	6	

CURED PHYSICAL PROPERTIES	APTEK 6115-PMF	TEST METHOD
Hardness, durometer D	82	ASTM D-2240
Glass transition temp., °C	75	ASTM E-831
Thermal coefficient of expansion, in/in/°C alpha 1	65 x 10^{-6}	ASTM E-831
alpha 2	204 x 10^{-6}	ASTM E-831

CURED ELECTRICAL PROPERTIES	APTEK 6115-PMF	TEST METHOD
Volume resistivity @ 25°C, ohm-cm	>1.0 x 10^{15}	ASTM D-257
Dissipation factor/dielectric constant @ 25°C, 1 KHz	0.031/3.6	ASTM D-150

Transmission curve at 0.020" thickness:



SAFETY AND FIRST AID

APTEK 6115-PMF is safe to use when handled properly. Contact with skin or eyes may cause irritation and possible allergic skin reaction with prolonged or repeated use. 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 Safety Data Sheet for more details.

Revised: 7-28-17-mjv
Issued: 11-30-16