

High Temperature Epoxy Encapsulating and Potting Compound



832HT

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For encapsulating and potting electronics in high temperature environments, aggressive chemical environments, or where improved technology protection is desired. Bonds to a wide variety of substrates, including metals, glass, ceramics and many plastics.

Features / Benefits

- Extreme physical strength and chemical resistance
- Suitable for extreme environments, such as submersion in salt water, acids, bases, fuels, and alcohols
- Protects against strong vibrations, abrasions, and direct physical impact
- Extremely difficult to remove - grants incredible technology protection
- Maximum service temperature of 275°C (527°F)

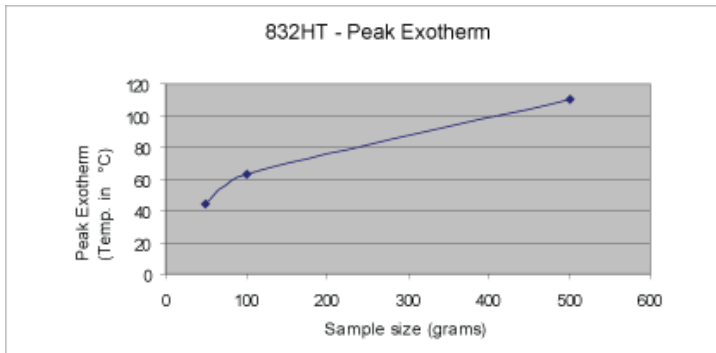
Typical Applications

- Use in electronic assemblies to prevent vibration damage
- Encapsulate circuits for the purpose of technological protection

Specifications

Cured Properties - Physical	Test Method	Result
Part A Viscosity at 20 °C (68 °F)		54,800 cps
Part B Viscosity at 20 °C (68 °F)		11,000 cps
Mixed Viscosity at 20 °C (68 °F)		40,000 cps
Mixing Ratio by Volume		2.0 : 1.0 (Part A: Part B)
Mixing Ratio by Mass		2.186 : 1.000 (Part A: Part B)
Maximum Service Temperature		275 °C (527 °F)
Color		Black
Maximum Intermittent Temperature		300 °C (572 °F)
Working Time (100 gram sample)		1 hour
Hardness, Shore D		80
Tensile Strength	ASTM-D-638-02a	7,861 PSI
Elongation	ASTM-D-638-02a	3.38%
Compressive Strength	ASTM-D-695-02a	11,870 PSI
Flexural Strength	ASTM-D-790-03	14,600 PSI
Flexural Modulus	ASTM-D-790-03	399,000 PSI
Lap Shear Strength	ASTM-D-1002-01	1,794 PSI
Coefficient of Thermal Expansion	ASTM-D-648-01	
-40 °C to 50 °C		75.7x10 ⁻⁶ mm/mm°C
+100 °C to +250 °C		154.0x10 ⁻⁶ mm/mm°C
-40 °C to +250 °C		125.3x10 ⁻⁶ mm/mm°C
+25 °C to +250 °C		140.2x10 ⁻⁶ mm/mm°C
Deflection Temperature Under Load	ASTM-D-648-01	53.9 °C (129.02 °F)
Thermal Conductivity	ASTM-E-1530-99	0.210 W/m ² K
Thermal Conductivity @ 25 °C (77°F)	ASTM-E-1461-92	0.218 W /m ² K
Thermal Diffusivity @ 25 °C (77 °F)	ASTM-E-1461-92	

Specific Heat Capacity @ 25 °C (77 °F)	ASTM-E-1269-01	1.33 x 10 ⁻¹³ M ² /s 1419 J/kg°K
Curing Time (100g)		
@ room temp.		24 hours
@ 65°C		60 minutes
@ 80°C		45 minutes
@ 100°C		35 minutes
@ 130°C		25 minutes
@ 160°C		15 minutes
@ 200°C		10 minutes
Cured Properties - Electrical	Test Method	Result
Corrected Dissipation Factor, D	ASTM D150-98	0.007 @ 1KHz
		0.011 @ 10KHz
		0.014 @ 100KHz
		0.014 @ 1MKHz
Dielectric Constant	ASTM D150-98	4.24 @ 60Hz
		2.96 @ 1KHz
		2.81 @ 10KHz
		2.83 @ 100KHz
		2.83 @ 1MKHz
Dissipation Factor	ASTM-D-150-98	0.0018 @ 60 Hz
Volume Resistivity	ASTM-D-257-99	9.3 x 10 ¹⁵ ohm · cm
Surface Resistivity	ASTM-D-257-99	5.3 x 10 ¹³ ohm
Dielectric Strength	ASTM D149-97a	1,138 V/mill @ 0.020"
	ASTM D149-97a	326 V/mil @ 0.017"
Breakdown Voltage	ASTM D149-97a	54.4 kV



Sample Size (grams)	Peak Exotherm (Temp. in °C)	Time in Minutes
50	44	155
100	63	110
500	110	65

Available Sizes

Catalog Number	Sizes Available	Description
832HT-375ML	375ml (12 oz)	Liquid
832HT-3L	3L (0.8 gal)	Liquid