

834 Series Two-part Epoxy Potting Comparison Chart

	834B	834FX	834HTC
UNCURED PROPERTIES			
Mix ratio by volume (A:B)	2:1	1:1	5:1
Viscosity Mixture	16 200 cP	10 800 cP	10 500 cP
Part A	27 500 cP	4 560 cP	55 900 cP
Part B	2 100 cP	4 670 cP	24 000 cP
Working life @22 °C [72 °F]	1 h	2.5 h	1.5 h
Full cure @22 °C [72 °F]	72 h	48 h	24 h
Full cure @65 °C [149 °F]	2.5 h	2 h	2 h
Full cure @80 °C [176 °F]	1 h	1 h	1 h
Full cure @100 °C [212 °F]	20 min	30 min	30 min
CURED PROPERTIES			
Physical Properties			
Color	Black	Black	Black
Density	1.59 g/mL	1.64 g/mL	1.69 g/mL
Hardness	85D	88A	91D
UL 746A and UL 94V-0	Meets	Meets	Certified
Halogen free	Yes	Yes	Yes
Mechanical Properties			
Tensile strength	17 N/mm ²	5.3 N/mm ²	22 N/mm ²
Compressive strength	74 N/mm ²	21 N/mm ²	123 N/mm ²
Lap shear strength (stainless steel)	8.2 N/mm ²	3.7 N/mm ²	6.7 N/mm ²
Electrical Properties			
Resistivity	2.1 x 10 ¹² Ω·cm	7.5 x 10 ¹¹ Ω·cm	3.0 x 10 ¹³ Ω·cm
Dielectric strength @1/8"	376 V/mil	330 V/mil	345 V/mil
Breakdown voltage @1/8"	47 kV	41.4 kV	43.1 kV
Dielectric constant @1 MHz	3.10	4.50	3.91
Dielectric dissipation @1 MHz	0.010	0.044	0.019
Thermal Properties			
Thermal conductivity @25 °C [77 °F]	0.79 W/(m·K)	0.61 W/(m·K)	0.94 W/(m·K)
Specific heat capacity @25 °C [77 °F]	1.5 J/(g·K)	1.4 J/(g·K)	1.3 J/(g·K)
Glass transition temperature (T _g)	56 °C [131 °F]	0.7 °C [33 °F]	117 °C [243 °F]
CTE prior T _g	74 ppm/°C [165 ppm/°F]	71 ppm/°C [160 ppm/°F]	34 ppm/°C [93 ppm/°F]
CTE after T _g	107 ppm/°C [225 ppm/°F]	137 ppm/°C [279 ppm/°F]	116 ppm/°C [241 ppm/°F]
Constant service temperature	-40–175 °C [-40–175 °F]	-50–150 °C [-58–302 °F]	-50–150 °C [-58–302 ppm/°F]
Intermittent temperature limit	-50–200 °C [-58–392 °F]	-55–165 °C [-65–329 °F]	-55–165 °C [-65–329 °F]

Refer to TDS for more information.