

# Summary Of Dielectric Characteristics

Part Number	Thickness <sup>1</sup> [10 <sup>-3</sup> in/10 <sup>-6</sup> m]	THERMAL PERFORMANCE			DIELECTRIC PERFORMANCE			OTHER		
		Impedance <sup>2</sup> [°C/W]	Impedance <sup>3</sup> [°C in <sup>2</sup> /W]	Conductivity <sup>4</sup> [°W/m-K]	Typical Proof Test <sup>5</sup> [VDC]	Breakdown <sup>6</sup> [kVAC]	Permittivity <sup>7</sup> [Dielectric Constant]	Glass Transition <sup>8</sup> [°C]	UL Index <sup>9</sup> [°C]	Peel Strength <sup>10</sup> [lb/in]
HT-04503	3/75	0.45	0.05	2.2	1500	6.0	7	150	140/140	6
HT-07006	6/150	0.70	0.07	2.2	2500	11.0	7	150		
LTI-04503	3/75	0.45	0.05	2.2	1500	6.5	7	90	130/130	6
LTI-06005	5/125	0.60	0.09	2.2	2000	9.5	7	90		
MP-06503	3/75	0.65	0.09	1.3	1500	8.5	6	90	130/140	9
CML-11006*	6/150	1.1	0.21	1.1	2500	10.0	7	90	130/130	10

**Method Description**

- 1 - Optical
- 2 - Internal TO-220 test RD 2018
- 3 - Calculation from ASTM 5470
- 4 - Extended ASTM 5470
- 5 - 500V/sec ramp, 5 sec hold
- 6 - ASTM D149
- 7 - ASTM D150
- 8 - Internal MDSC test RD 2014
- 9 - UL 746 E
- 10 - ASTM D2861

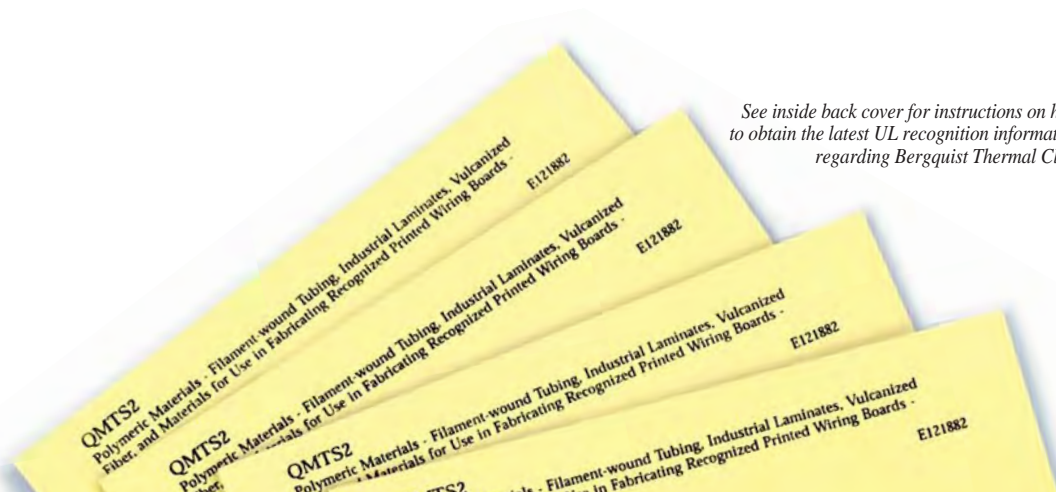
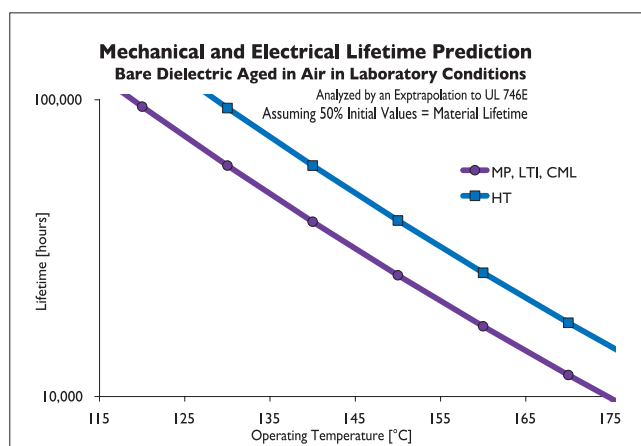
**Note:** For applications with an expected voltage over 480 Volts AC, Bergquist recommends a dielectric thickness greater than 0.003" (75µm).  
**Note:** Maximum test voltage is a function of material and circuit design. Typical proof test does not represent the maximum.

\*CML is available in prepreg form.

## Operating Temperatures

Choose the dielectric that best suits your operating temperature environment. For high temperature applications, such as automotive, HT offers the right solution. All of our dielectrics are UL recognized.

MATERIAL	UL RTI - ELECTRO / MECHANICAL
HT	140°C / 140°C
LTI	130°C / 130°C
MP	130°C / 140°C
CML	130°C / 130°C



See inside back cover for instructions on how to obtain the latest UL recognition information regarding Bergquist Thermal Clad.