

Chi Mei Wonderloy® PC-545

Ultra-High heat, halogen-free flame retardant, 1.2mm V-0, 2.5 mm 5VA. Applications: Set-top boxes, projectors, computers, communication equipment, consumer electronics products, video game consoles, networking products.

Physical Properties	Metric	English	Comments
Density	1.19 g/cc	0.0430 lb/in ³	ISO 1183
Linear Mold Shrinkage	0.0010 - 0.0030 cm/cm	0.0010 - 0.0030 in/in	ISO 294-4
Melt Flow	10 g/10 min @Load 2.16 kg, Temperature 260 °C	10 g/10 min @Load 4.76 lb, Temperature 500 °F	Melt Volume Rate (ml/10 min.); ISO 1133
Spiral Flow	24.7 cm @Thickness 2.00 mm, Temperature 260 °C	9.72 in @Thickness 0.0787 in, Temperature 500 °F	V: 50%, P: 50%; Chi Mei Test

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	62.0 MPa	8990 psi	50mm/min; ISO 527
Tensile Strength, Yield	63.0 MPa	9140 psi	50 mm/min; ISO 527
Elongation at Break	107 %	107 %	50mm/min; ISO 527
Flexural Strength	94.0 MPa	13600 psi	2mm/min; ISO 178
Flexural Modulus	2.40 GPa	348 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	15.0 kJ/m ² @Thickness 3.17 mm, Temperature -30.0 °C	7.14 ft-lb/in ² @Thickness 0.125 in, Temperature -22.0 °F	ISO 180/1A
	63.0 kJ/m ² @Thickness 3.17 mm, Temperature 23.0 °C	30.0 ft-lb/in ² @Thickness 0.125 in, Temperature 73.4 °F	ISO 180/1A
Charpy Impact, Notched	1.40 J/cm ² @Temperature -30.0 °C	6.66 ft-lb/in ² @Temperature -22.0 °F	1/8"; ISO 179
	6.00 J/cm ² @Temperature 23.0 °C	28.6 ft-lb/in ² @Temperature 73.4 °F	1/8"; ISO 179

Electrical Properties	Metric	English	Comments
Volume Resistivity	3.90e+15 ohm-cm	3.90e+15 ohm-cm	IEC 60093
Surface Resistance	2.90e+15 ohm	2.90e+15 ohm	IEC 60093
Dielectric Constant	3.1 @Frequency 1e+6 Hz	3.1 @Frequency 1e+6 Hz	IEC 60250

Thermal Properties	Metric	English	Comments
CTE, linear	80.0 µm/m-°C	44.4 µin/in-°F	ISO 11359
Deflection Temperature at 1.8 MPa (264 psi)	102 °C	216 °F	Unannealed; ISO 75/A
Vicat Softening Point	121 °C @Load 5.00 kg	250 °F @Load 11.0 lb	50°C/hr; ISO 306
	127 °C @Load 1.00 kg	261 °F @Load 2.20 lb	50°C/hr; ISO 306
Flammability, UL94	V-0 @Thickness 1.20 mm	V-0 @Thickness 0.0472 in	
	5VA @Thickness 2.50 mm	5VA @Thickness 0.0984 in	