



# PRIOR PLASTIC CO., LTD.

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FR4 Epoxy Fiber Glass Technical Data Sheet			
Technical Data	Method of Verification	Unit	FR4
<b>I.Physical Properties</b>			
Density	ISO 1183	g/cm3	2.0~2.15
Water absorption 24hrs	ISO 62	%	0.15
<b>III.Thermal Properties</b>			
Max. service temperature -Short term	ISO 75-2	°C	280
Max. service temperature - Long term	ISO 75-2	°C	170
Coefficient of Thermal Expansion-LW	ISO 11359	m/K	11
Coefficient of Thermal Expansion-CW	ISO 11359	m/K	15
Thermal Conductivity	ASTM D5930	W/(m·K)	2.2~2.5
Flammability	UL 94	Class	V-0
<b>II.Mechanical Properties</b>			
Tensile strength at yield	ISO 527-2	MPa	≥240
Tensile strength at break	ISO 527-2	Mpa	/
Hardness Rockwell	DIN 53505		110
Izod impact strength	ISO 179	kJ/m2	≥33
Bending Strength	ISO 527-2	Mpa	/
Flexural strength	ISO 179	Mpa	≥350
Adhesive Strength	ISO 179	N	/
Compressive strength-Flatwise	ISO 179	Mpa	≥415
<b>IV.Electrical Properties</b>			
Volume resistivity	IEC 60093	Ohm (Ω) * cm	5.0x10 <sup>9</sup> ~10 <sup>11</sup>
Surface resistivity	IEC 60093	Ohm (Ω)	5.0x10 <sup>10</sup> ~10 <sup>12</sup>
Electric strength	VDE 0303	kV/mm	≥13.7
Breakdown Voltage-CW	VDE 0303	kV	>38
Relative dielectric coefficient	VDE 0303	/	≤5.5
Dielectric Loss mudule	VDE 0303	50HZ	≤0.04
Arc resistance	VDE 0303	Sec	>60
<b>NOTE: 1 g/cm3 = 1,000 kg/m3, 1 Mpa = 1 N/mm2, 1kV/mm = 1 MV/m</b>			

**Statement:**

Property data contained herein are typical values of resin for your reference and comparison purposes only. PRIOR will not provide any legally binding guarantee of certain properties, or any suitability.