

Epoxy glass fabric laminate FR-4

Mechanical properties	Test method	Test environment	Unit	Value
Tensile strength	ISO 527	-	MPa	350
Tensile modulus	ISO 178	-	GPa	20
Bending strength	ISO 178	-	MPa	470
Compression strength	ISO 604	-	MPa	500
Impact strength	ISO 180	Izod, notched, parallel	kJ/m ²	70
Tear strength	EN 60893	parallel	MPa	55

Thermal properties	Test method	Test environment	Unit	Value
Service temperature	IEC 216	20.000 h	°C	150
Coefficient of linear thermal expansion	- -	-	10 ⁻⁵ K ⁻¹	1,5

Electrical properties	Test method	Test environment	Unit	Value
Dielectric constant	IEC 60250	ϵ_r , 50 Hz	-	4,5
Dielectric constant	IEC 60250	ϵ_r , 1 MHz	-	4,5
Loss factor	IEC 60250	$\tan \delta$, 50 Hz	-	0,005
Loss factor	IEC 60250	$\tan \delta$, 1 MHz	-	0,008
Dielectric strength	IEC 60243	perpendicular	kV/mm	15
Volume resistivity	- -	-	ohm cm	10 ¹¹
Surface resistivity	- -	-	ohm	10 ¹¹
Tracking resistance	IEC 60112	-	-	200

Other properties	Test method	Test environment	Unit	Value
Density	ISO 1183	-	g/cm ³	1,80
Flammability	UL 94	-	-	V0

The data presented are taken from our suppliers and represent our best knowledge. The values are given in good faith. They should not constitute the basis for calculations, construction etc. The responsibility for verifying material data rests with the end-user.