



GRL green

GRL: abbreviation for: glass-reinforced laminate
Matrix: epoxy resin
Core material: glass fibre
Temperature range: -60°C – +180°C
Thickness: 0.5 mm / 1.0 mm

Material data

	Test method	Value DIN 7735	Typical value
Flexural strength [MPa]	DIN 53452	350	530
Flexural strength at 180°C [MPa]	DIN 53452	175	295
Impact strength [kJ/m ²]	DIN 53452	100	145
Notched impact strength [kJ/m ²]	DIN 53452	50	60
Tensile strength [MPa]	DIN 53455	220	320
Compressive strength [MPa]	DIN 53454	150	320
Interlaminar strength [N]	DIN 53463	3000	4200
Modulus of elasticity [MPa]	DIN 53452	18,000	28,000

Electrical properties

	Test method	Value DIN 7735	Typical value
Resistance between plugs [Ω]	DIN 53482	5 x 10 ¹⁰	10 ¹²
High voltage strength [KV]	DIN 53481	40/40	80/70
Dissipation factor at 1 MHz	DIN 53483	0.05	0.03
Dielectric constant	DIN 53483	5	5
Tracing resistance	DIN/IEC 112	200	210
Electrical corrosion	DIN 53489	AN 1.2	AN 1.2

Thermal properties

	Test method	Value DIN 7735	Typical value
Resistance between plugs [Ω]	VDE 0304	155	155
High voltage strength [KV]	DIN 52672	0,3	0,25
Dissipation factor at 1 MHz	VDE 0304	10-20	15
Dielectric constant	VDE 0534	F	F
Tracing resistance	VDE 0534	2a	2a
Electrical corrosion	UL 94	V0	V0

Other properties

	Test method	Value DIN 7735	Typical value
Density [g/cm ³]	DIN 53479	1,7-1,9	1,85
Water absorption [mg]	DIN 53495	30	15
Colour		green	green