Technical Data Sheet

Durostone® EPM 204

GFK-EP

Typical characteristics

- Special epoxy (EP) resin matrix reinforced with an e-glass roving mat
- Flame retardant
- Good machinability

Typical industries

- Oil and Gas
- Solar Energy
- Renewable Energies
- Electrical Insulating Components
- Electrical Industry

	Test method	Unit	Guideline value
Mechanical properties			
Flexural strength ⊥	ISO 178	MPa	360
Flexural strength ⊥ +150°C	ISO 178	MPa	200
Modulus of elasticity in flexion ⊥	ISO 178	MPa	18000
Modulus of elasticity in flexion ⊥ +150°C	ISO 178	MPa	12000
Compressive strength ⊥	ISO 604	MPa	450
Compressive strength II	ISO 604	MPa	300
Tensile strength II	ISO 527	MPa	280
Impact strength II (Charpy)	ISO 179	kJ / m^2	120
Shear strength ⊥	IEC 60893	MPa	150
Shear strength II	IEC 60893	MPa	25
Thermal properties			
Temperature index	IEC 60216	T.I.	180
Coefficient of linear expansion ⊥	NF T 51221	10^{-6} x K^{-1}	13
Coefficient of linear expansion II	NF T 51221	10^{-6} x K^{-1}	65
Temperature of deflection under load	IEC 893-2	°C	> 200
Thermal conductivity	ISO 8302	W/m K	0,36
Flame resistance properties			
Flammability	NF P92-507	-	M1
Flammability	UL94		V0

	Test method	Unit	Guideline value
Smoke index	NF P 92501	-	F1
Physical properties			
Density	ISO 1183	g / cm^3	1,9
Water absorption (10mm thickness)	ISO 62	%	0,20
Dielectrical properties			
Electric strength 90°C under oil $^{\perp}$	IEC 60243	kV / mm	12
Electric strength 90°C under oil II	IEC 60243	kV/25mm	60
Relative permittivity (50 Hz)	IEC 60250	ε_r	5
Dielectric loss factor (50 Hz)	IEC 60250	tan δ	0,05
Specific surface resistance	IEC 60093	Ω	10^{12}
Specific volume resistance	IEC 60093	Ω x cm	10^{13}
Comparative tracking index	IEC 60112	CTI	400

$^{\perp}$ = perpendicular to the lamination II = parallel to the lamination