PEI GF30, with 30% glassfibre

Mechanical properties	Test method	Test environment	Unit	Value
Tensile strength	ISO 527	break	MPa	160
Tensile strain	ISO 527	break	%	3
Tensile modulus	ISO 527	-	GPa	9
Shear strength	ASTM D3846	break	MPa	97
Bending strength	ASTM D790	-	MPa	228
Bending modulus	ASTM D790	-	GPa	9
Impact strength	ISO 179	Charpy	kJ/m^2	10
Impact strength	ASTM D256	Izod, unnotched	J/m	40
Hardness	ISO 2039	Rockwell	-	M125

Thermal properties	Test method	Test environment	Unit	Value
Service temperature	- -	continuous	°C	170
Service temperature	- -	short term	°C	180
Glass transition temperature	- -	-	°C	215
Heat distortion temperature	ISO 75	0,45 MPa	°C	215
Heat distortion temperature	ISO 75	1,82 MPa	°C	210
Coefficient of linear thermal expansion	ASTM D696	23 °C	$10^{-5}\,K^{-1}$	2
Thermal conductivity	- -	-	W/m,K	0,23

Electrical properties	Test method	Test environment	Unit	Value
Dielectric constant	IEC 60250	ε, 1 MHz	-	3,7
Loss factor	IEC 60250	tan δ, 1 MHz	-	0,007
Dielectric strength	DIN 53481	-	kV/mm	30
Volume resistivity	DIN 53482	-	ohm cm	$3*10^{16}$
Arc resistance	ASTM D495	-	s	85

Other properties	Test method	Test environment	Unit	Value
Density	ISO 1183	-	g/cm^3	1,51
Water absorption	- -	equilibrium, 23 °C, RH 50%	%	0,18
Water absorption	- -	saturation, immersion, 23 °C	%	0,9
Oxygen index	ISO 4589	-	%	50
Flammability	UL 94	1,5 mm	-	V0

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