

Properties	Test Method	Terms	Units	GF Reinforced Alloy
				5810G40
				Low Warpage Low Density
				GF40
<b>Physical properties</b>				
Density	ISO 1183	–	g/cm <sup>3</sup>	1.53
<b>Dimensional properties</b>				
Moulding shrinkage (2mmt)	–	MD TD	%	0.3 0.6
<b>Rheological properties</b>				
Melt Volume flow Rate	ISO 1133	–	cm <sup>3</sup> /10min –	26 250°C × 5kg
<b>Mechanical properties</b>				
Yield stress	ISO 527-1,2	–	MPa	–
Stress at break	ISO 527-1,2	–	MPa	130
Strain at break		–	%	1
Flexural strength	ISO 178	–	MPa	195
Flexural modulus		–	MPa	12,000
Charpy impact	ISO 179-1, 2	–	kJ/m <sup>2</sup> kJ/m <sup>2</sup>	60
		notched		11
<b>Thermal properties</b>				
Melting temperature	ISO 11357-3	–	°C	224
Temperature of deflection under load	ISO 75-1, 2	1.80MPa	°C	190
		0.45MPa		>200
Coefficient of Linear thermal expansion	ISO 11359-2	MD: -30~120°C	1E-5/°C	1.0
		MD: -30~35°C		1.0
		MD: 35~120°C		1.0
		TD: -30~120°C		9.0
		TD: -30~35°C		7.0
TD: 35~120°C	11.0			
Flammability	UL94	–	–	–
<b>Electrical properties</b>				
Volume resistivity	IEC 60093	–	Ω·m	>1E12
Surface resistivity	IEC 60093	–	Ω	>1E14
Electric strength	IEC 60243-1	1mmt	MV/m	40
		2mmt		30
		3mmt		–
CTI	UL746A	–	–	–
RTI(Elec)	UL746B	–	–	–
RTI(Imp)	UL746B	–	–	–
RTI(Str)	UL746B	–	–	–
<b>Molding Conditions (Standard example)</b>				
Pre-drying Temperature	–	–	°C	120 / 140
Pre-drying Time	–	–	h	5-8 / 4-6
Cylinder temperature	–	–	°C	240-265
Mold temperature	–	–	°C	50-90
Injection speed	–	–	–	Middle-High
Injection pressure	–	–	MPa	20-150
Screw speed	–	–	rpm	80-150

The values described are typical values only.