PRESPPS – GF30

Test Item	Test Method	Conditions	Units	Test Data
Mechanical Data				
Tensile Strength	ASTM D638	Fracture, 23°C	MPa	172
	ISO 527-2/1A/5	Fracture	MPa	170
Tensile Elongation	ASTM D638	Fracture, 23°C	%	1.9
	ISO 527-2/1A/5	Fracture	%	1.9
Tensile Modulus	ISO 527-2/1A/1	23°C	MPa	12000
Flexural Strength	ISO 178	23°C	MPa	260
Flexural Modulus	ISO 178	23°C	MPa	11000
Rockwell Hardness	ASTM D785	M-level	-	100
	ISO 2039-2	M-level	-	100
Charpy Impact Strength	ISO 179/1eA	-30°C,Notched	kJ m^{-2}	9.0
	ISO 179/1eA	23°C,Notched	kJ m^{-2}	9.0
	ISO 179/1eU	-30°C,Unnotched	kJ m^{-2}	34
	ISO 179/1eU	23°C,Unnotched	kJ m^{-2}	34
Izod Impact Strength	ISO 180/1A	-30°C	kJ m^{-2}	9.0
	ISO 180/1A	23°C	kJ m^{-2}	9.0
Mould Shrinkage	ASTM D955	MD	%	0.30 to 0.50
	ASTM D955	TD	%	0.60 to 0.90
	ISO 294-4	MD	%	0.30 to 0.50
	ISO 294-4	TD	%	0.60 to 0.90
Thermal Data				
Heat Deflection Temperature	ASTM D648	1.8 MPa, unannealed	°C	266
	ASTM D648	0.45 MPa, annealed	°C	280
	ISO 75-2/A	1.8 MPa, unannealed	°C	255
Glass Transition (Tg)	ISO 11357-2	-	°C	90
Coefficient of Thermal Expansion	ISO 11359-2	MD	1/°C	2.9E-5
	ISO 11359-2	TD	1/°C	5.2E-5
Miscellaneous				
Density	ASTM D792	-	g cm^{-3}	1.60
	ISO 1183	-	g cm^{-3}	1.58
Specific Volume	ASTM D792	-	cm^3 g^{-1}	0.636
Water Absorption	ISO 62	Saturation, 23°C	%	0.020
Specimen Thickness (Shrinkage)	Internal Method	-	mm	3.18
Electrical Data				
Surface Resistivity	IEC 60093	-	ohms	> 1.0E+15

Volume Resistivity	ASTM D257	-	Ω cm	1.0E+16
	IEC 60093	-	Ω cm	> 1.0E+15
Dissipation Factor	ASTM D150	1 kHz	-	1.0E-3
	ASTM D150	1 MHz	-	1.0E-3
Arc Resistance	ASTM D495	-	sec	127
Comparative Tracking Index	ASTM D3638	-	V	150
Flame Characteristics				
Flame Class Rating	UL 94	0.80 mm	-	V-0
	UL 94	1.50 mm	-	V-0
Processing Conditions				
Drying Temperature	-	-	°C	130 to 140
Drying Time	-	-	hr	3.0 to 4.0
Recommended Maximum Moisture Content	-	-	%	0.020
Hopper Temperature	-	-	°C	20 to 30
Barrel Rear Temperature	-	-	°C	290 to 300
Barrel Middle Temperature	-	-	°C	310 to 320
Barrel Front Temperature	-	-	°C	330 to 340
Nozzle Temperature	-	-	°C	310 to 330
Processing (Melt) Temperature	-	-	°C	330 to 340
Mold Temperature	-	-	°C	140 to 160
Injection Pressure	-	-	MPa	50 to 100
Injection Speed	-	-	-	Fast
Hold Pressure	-	-	MPa	30 to 70
Back Pressure	-	-	MPa	0 to 3

1. Typical properties: these are not to be construed as specifications.
2. 10°C/min