

Dupiace

Modified PPE Resin

				Fiber Reinforced V—0		
Properties	Test Method	Terms	Units	GN10	GN20	GN30
				-	-	-
				GF	GF	GF
				10%	20%	30%
-	-	-				
Physical properties						
Density	ISO 1183	-	g/cm³	1.17	1.24	1.33
Water absorption	-	23degC, 50%RH 23degC, 60%RH 23degC, Underwater	%	- - 0.06	- - 0.06	- - 0.06
Rheological properties						
Melt Mass-flow Rate	ISO 1133	Temperature Load	g/10min	-	-	-
Melt Volume-flow Rate			cm³/10min	6.0	3.4	2.9
			degC	300	300	300
			kg	2.16	2.16	2.16
Moulding shrinkage	-	-	%	-	-	-
Moulding shrinkage (3.2mmt)	-	MD TD	%	0.2 - 0.4 0.3 - 0.5	0.1 - 0.3 0.2 - 0.4	0.1 - 0.2 0.2 - 0.4
Moulding shrinkage (1mmt)	-	MD TD	%	- -	- -	- -
Moulding shrinkage (2mmt)	-	MD TD	%	- -	- -	- -
Moulding shrinkage (3mmt)	-	MD TD	%	- -	- -	- -
Mechanical properties						
Tensile modulus	ISO 527-1 , 527-2	23 degC	MPa	4500	6700	9000
Yield stress			-	-	-	
Yield strain			%	-	-	-
Nominal strain at break			-	-	-	
Stress at 50% strain			MPa	-	-	-
Stress at break	ISO 178	23 degC	MPa	83	99	110
Strain at break			%	2.5	2.5	1.5
Flexural strength			MPa	140	154	190
Flexural modulus	ISO 179-1 , 179-2	23 degC	MPa	4300	6200	8900
Charpy impact strength			kJ/m²	-	-	-
Charpy notched impact strength			kJ/m²	7	7	7
Thermal properties						
Melting temperature	ISO 11357-3		degC	-	-	-
Glass transition temperature	ISO 11357-2		degC	-	-	-
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	120 127	125 132	130 137
Vicat softening temperature	ISO 306	-	degC	-	-	-
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	4.5E-05 7.5E-05	3.0E-05 6.8E-05	2.5E-05 6.0E-05
Flammability	UL94	-	-	-	-	-
		0.4mmt	-	-	-	-
		0.75mmt	-	V-0	V-1	V-1
		1.5mmt	-	-	V-0	V-0
		2.0mmt	-	5VA	5VA	5VA
GWFI(Glow-wire flammability test method for materials)	IEC 60695-2-12	3.0mmt	-	-	-	-
GWIT(Glow-wire ignitability test method for materials)	IEC 60695-2-13	3.0mmt	-	-	-	-
Electrical properties						
Relative permittivity	IEC 60250	100Hz	-	-	3.4	-
		1MHz	-	-	3.3	-
Dissipation factor	IEC 60250	100Hz	-	-	0.0045	-
		1MHz	-	-	0.0055	-
Volume resistivity	IEC 60093	-	ohm-m	3.E+14	3.E+14	3.E+14
Surface resistivity	IEC 60093	-	ohm	2.E+15	2.E+15	2.E+15
Electric strength	IEC 60243-1	1mmt	-	-	25	-
		2mmt	-	-	-	-
		3mmt	-	-	17	-
Comparative tracking index	IEC 60112	-	-	200	225	200
	UL746A	-	-	-	-	-

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