Mitsubishi Engineering-Plastics Corporation

Iupiace

Modified PPE Resin

Properties	Test Method	Terms	Units	Friction/Wear Resistance Improved **AHF6010** Unreinforced	**GHF3010** Fiber Reinforced
				PTFE	PTFE
				10%	10%
				-	-
Physical properties					
Density	ISO 1183	-	g/cm^3	1.12	1.37
Water absorption	-	23degC, 50%RH 23degC, 60%RH 23degC, Underwater	%	- - 0.06	- - 0.10
Rheological properties					
Melt Mass-flow Rate Melt Volume-flow Rate	ISO 1133	 Temperature Load	g/10min cm^3/10min degC kg	- 6.2 300 2.16	- 1.9 300 2.16
Moulding shrinkage	-	-	%	-	-
Moulding shrinkage (3.2mmt)	-	MD TD	%	0.5 - 0.7 0.5 - 0.7	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 Yield stress	ISO 527-1 , 527-2	23 degC	MPa	2400 51	8600 -
Yield strain Nominal strain at break			%	5.0 15	- -
Stress at 50% strain Stress at break			MPa	- -	- 90
Strain at break			%	-	1.8
Flexural strength Flexural modulus	ISO 178	23 degC	MPa	84 2500	130 8600
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m^2	-	-
Charpy notched impact strength		23 degC	kJ/m^2	8	4
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	110 -	120 -
Vicat softening temperature	ISO 306	-	degC	-	-
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	6.0E-05 6.0E-05	2.5E-05 6.0E-05
Flammability	UL94	-	-	-	-
		0.4mmt	-	-	-
		0.75mmt	-	-	-
		1.5mmt	-	HB	HB
		3.0mmt	-	-	-
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 1MHz	- -	- -	- -
Dissipation factor	IEC 60250	100Hz 1MHz	- -	- -	- -
Volume resistivity	IEC 60093	-	ohm-m	3.E+14	2.E+14
Surface resistivity	IEC 60093	-	ohm	6.E+15	2.E+15
Electric strength	IEC 60243-1	1mmt 2mmt 3mmt	MV/m	- - -	- - -
Comparative tracking index	IEC 60112	-	-	-	-
	UL746A	-	-	-	-

The listed properties are portrayed as general information only and are not product specifications.

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