Iupilon

Polycarbonate Resin

Properties	Test Method	Terms	Units	Light Reflection HPR3000	HPR3500	GHP2010R	EHR3100
				Flame Retardant	Flame Retardant	Flame Retardant	Flame Retardant
				-	-	GF	-
				-	-	10%	-
				-	-	-	-
Physical properties							
Density	ISO 1183	-	g/cm^3	1.29	1.29	1.37	1.30
Water absorption		23degC, 50%RH 23degC, Underwater	%	- 0.20	- 0.20	- 0.18	- 0.20
Rheological properties							
Melt Mass-flow Rate	ISO 1133		g/10min	17	18	12	24
Melt Volume-flow Rate			cm^3/10min	17	17	12	22
		Temperature	degC	300	300	300	300
		Load	kgf	1.20	1.20	1.20	1.20
Moulding shrinkage (3.2mmt)	-	MD TD	%	0.4 - 0.6 0.4 - 0.6	0.35 - 0.55 0.35 - 0.55	0.2 - 0.4 0.2 - 0.4	0.4 - 0.6 0.4 - 0.6
Mechanical properties							
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2800	2800	4400	2700
Yield stress				63	63	-	53
Yield strain			%	4.3	4.4	-	5
Nominal strain at break				53	55	-	55
Stress at 50% strain			MPa	-	-	-	-
Stress at break				-	-	60	-
Strain at break			%	-	-	2.4	-
Flexural strength	ISO 178	-	MPa	102	102	108	89
Flexural modulus				2900	2900	4200	2500
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m^2	NB	NB	30	NB
Charpy notched impact strength		23 degC	kJ/m^2	49	49	5	35
Thermal properties							
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	106 118	97 107	101 108	120 135
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	6.2E-05 6.3E-05	6.2E-05 6.3E-05	1.9E-05 4.3E-05	6.2E-05 6.3E-05
Flammability	UL94	-	-	V-0(1.6mm)	V-0 (0.8mm)	V-0 (0.85mm)	V-0(1.6mm)
Electrical properties							
Relative permittivity	IEC 60250	100Hz 1MHz	- -	- -	- -	- -	- -
Dissipation factor	IEC 60250	100Hz 1MHz	- -	- -	- -	- -	- -
Volume resistivity	IEC 60093	-	ohm-m	3E+14	3E+14	-	3E+14
Surface resistivity	IEC 60093	-	ohm	6E+15	6E+15	-	6E+15
Electric strength	IEC 60243-1	1mmt 2mmt 3mmt	MV/m	- - -	- - -	- - -	- - -
Comparative tracking index	IEC 60112	-	-	>600	>600	300	-