Mitsubishi Engineering-Plastics Corporation

Polycarbonate Resin

Properties	Test Method	Terms	Units	for Lens of glasses CLV1000 High Viscosity Correcting glass	CLS1000 High Viscosity Light stabilized	CLS400 High Viscosity Light stabilized	CLS3400 Low Viscosity Sunglasses
				-	-	-	-
				-	-	-	-
				-	-	-	-
Physical properties							
Density	ISO 1183	-	g/cm^3	1.20	1.20	1.20	1.20
Water absorption		23degC, 50%RH 23degC, Underwater	%	- 0.24	- 0.24	- 0.24	- 0.24
Rheological properties							
Melt Mass-flow Rate Melt Volume-flow Rate	ISO 1133	 Temperature Load	g/10min cm^3/10min degC kgf	7.9 7.4 300 1.20	5.3 5.0 300 1.20	8.0 7.5 300 1.20	15.0 14.0 300 1.20
Moulding shrinkage (3.2mmt)	-	MD TD	%	0.5 - 0.7 0.5 - 0.7	0.5 - 0.7 0.5 - 0.7	0.5 - 0.7 0.5 - 0.7	0.5 - 0.7 0.5 - 0.7
Mechanical properties							
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2400	2400	2400	2400
Yield stress				60	60	60	62
Yield strain			%	5.5	5.4	5.5	6.7
Nominal strain at break				105	108	105	119
Stress at 50% strain			MPa	-	-	-	-
Stress at break				-	-	-	-
Strain at break			%	-	-	-	-
Flexural strength	ISO 178	-	MPa	93	93	93	93
Flexural modulus				2300	2300	2300	2300
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m^2	NB	NB	NB	NB
Charpy notched impact strength		23 degC	kJ/m^2	84	88	84	67
Thermal properties							
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	131 145	131 145	131 145	124 139
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	6.5E-05 6.6E-05	6.5E-05 6.6E-05	6.5E-05 6.6E-05	6.5E-05 6.6E-05
Flammability	UL94	-	-	-	-	-	-
Electrical properties							
Relative permittivity	IEC 60250	100Hz 1MHz	- -	3.1 3.1	3.1 3.1	3.1 3.1	3.1 3.1
Dissipation factor	IEC 60250	100Hz 1MHz	- -	0.0006 0.0090	0.0006 0.0090	0.0006 0.0090	0.0006 0.0090
Volume resistivity	IEC 60093	-	ohm-m	3.E+14	3.E+14	3.E+14	3.E+14
Surface resistivity	IEC 60093	-	ohm	6.E+15	6.E+15	6.E+15	6.E+15
Electric strength	IEC 60243-1	1mmt 2mmt 3mmt	MV/m	31 - 18	31 - 18	31 - 18	31 - 18
Comparative tracking index (CTI)	UL746A	-	-	-	-	-	-
				Cut UV of under 380nm at 3mmt	Cut UV of under 380nm at 3mmt	Cut UV of under 400nm at 3mmt	Cut UV of under 400nm at 3mmt

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

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