

Oupilon

Polycarbonate Resin

Properties	Test Method	Terms	Units	Basic					
				H-4000	H-3000	S-3000	S-2000	S-1000	E-2000
				Optical Disk	High Flowability	Low Viscosity	Medium Viscosity	High Viscosity	Extrusion
				-	-	-	-	-	-
				-	-	-	-	-	-
				-	-	-	-	-	-
Physical properties									
Density	ISO 1183	-	g/cm ³	1.20	1.20	1.20	1.20	1.20	1.20
Water absorption		23degC, 50%RH 23degC, Underwater	%	- 0.24	- 0.24	- 0.24	- 0.24	- 0.24	- 0.24
Rheological properties									
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	63	30	15	10	7.5	5.3
Melt Volume-flow Rate			cm ³ /10min	60	28	14	9	7.1	5.0
			degC	300	300	300	300	300	300
		Load	kgf	1.20	1.20	1.20	1.20	1.20	1.20
Moulding shrinkage (3.2mmt)	-	MD TD	%	0.4 - 0.6 0.4 - 0.6	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	0.5 - 0.7 0.5 - 0.7
Mechanical properties									
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2400	2400	2400	2400	2400	2400
Yield stress			63	62	62	61	60	60	
Yield strain			%	6.5	6.6	6.7	5.6	5.5	5.4
Nominal strain at break			76	118	119	113	105	108	
Stress at 50% strain			MPa	-	-	-	-	-	
Stress at break	MPa	-	-	-	-	-			
Strain at break	%	-	-	-	-	-			
Flexural strength	ISO 178	-	MPa	94	93	93	93	93	93
Flexural modulus			2300	2300	2300	2300	2300	2300	
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m ²	NB	NB	NB	NB	NB	NB
Charpy notched impact strength		23 degC	kJ/m ²	7	9	67	76	84	88
Thermal properties									
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	123 136	123 136	124 139	129 143	131 145	131 145
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	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	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	0.0006 0.0090	0.0006 0.0090
Volume resistivity	IEC 60093	-	ohm-m	3E+14	3E+14	3E+14	3E+14	3E+14	3E+14
Surface resistivity	IEC 60093	-	ohm	6E+15	6E+15	6E+15	6E+15	6E+15	6E+15
Electric strength	IEC 60243-1	1mmt	MV/m	31	31	31	31	31	31
		2mmt	-	-	-	-	-	-	-
		3mmt	18	18	18	18	18	18	18
Comparative tracking index (CTI)	UL746A	-	-	2	2	2	2	2	2
					H-3000V(R) (V-2) H-3000R (Mold Release) H-3000U(R) (UV Stabilized)	S-3000V(R) (V-2) S-3000R (Mold Release) S-3000U(R) (UV Stabilized) S-3001(R) (FDA compliant)	H-2000V(R) (V-2) S-2000R (Mold Release) S-2000U(R) (UV Stabilized) S-2001(R) (FDA compliant)	S-1000V(R) (V-2) S-1000R (Mold Release) S-1000U(R) (UV Stabilized) S-1001(R) (FDA compliant)	E-2000V(R) (V-2) E-2000R (Mold Release) E-2000U(R) (UV Stabilized) E-2001(R) (FDA compliant)

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

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