

# Oupilon

Polycarbonate Resin

Properties	Test Method	Terms	Units	Light guide Grade		
				HL-4000	HL-7001	HL-8000
				High flow High luminance	Super high flow High luminance	Super high flow High luminance
<b>Physical properties</b>						
Density	ISO 1183	-	g/cm <sup>3</sup>	1.20	1.20	1.20
Water absorption		23degC, 50%RH 23degC, Underwater	%	- 0.24	- 0.24	- 0.24
<b>Rheological properties</b>						
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	63	-	-
Melt Volume-flow Rate			cm <sup>3</sup> /10min	60	-	-
			degC	300	-	-
		Load	kgf	1.20	-	-
Moulding shrinkage (3.2mmt)	-	MD TD	%	0.4-0.6 0.4-0.6	0.4 - 0.6 0.4 - 0.6	0.4 - 0.6 0.4 - 0.6
<b>Mechanical properties</b>						
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2300	2300	2400
Yield stress			62	64	65	
Yield strain			%	5.7	5.5	5.7
Nominal strain at break			96	87	85	
Stress at 50% strain			MPa	-	-	-
Stress at break			%	-	-	-
Strain at break				-	-	-
Flexural strength	ISO 178	-	MPa	100	100	100
Flexural modulus				2500	2500	2500
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m <sup>2</sup>	NB	NB	NB
Charpy notched impact strength		23 degC	kJ/m <sup>2</sup>	9	8	7
<b>Thermal properties</b>						
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	123 136	118 132	118 132
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
Flammability	UL94	-	-	V-2(0.38mm)	V-2(0.38mm)	-
<b>Electrical properties</b>						
Relative permittivity	IEC 60250	100Hz 1MHz	-	3.1 3.1	3.1 3.1	3.1 3.1
Dissipation factor	IEC 60250	100Hz 1MHz	-	0.0006 0.009	0.0006 0.009	0.0006 0.009
Volume resistivity	IEC 60093	-	ohm-m	3.E+14	3.E+14	3.E+14
Surface resistivity	IEC 60093	-	ohm	6.E+15	6.E+15	6.E+15
Electric strength	IEC 60243-1	1mmt	MV/m	31	31	31
		2mmt		-	-	-
		3mmt		18	18	18
Comparative tracking index (CTI)	UL746A	-	-	2	2	-

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

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