

# Oupilon

Polycarbonate Resin

				Glass Fiber Reinforced (Low Warpage)			
				GS2020MDF	GS2030MDF	GS2040MDF	GS2050MDF
Properties	Test Method	Terms	Units				
				GF	GF	GF	GF
				20%	30%	40%	50%
				-	-	-	-
<b>Physical properties</b>							
Density	ISO 1183	-	g/cm <sup>3</sup>	1.35	1.43	1.52	1.63
Water absorption		23degC, 50%RH 23degC, Underwater	%	- 0.11	- 0.09	- 0.08	- 0.07
<b>Rheological properties</b>							
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	11	6.9	5.0	2.2
Melt Volume-flow Rate			cm <sup>3</sup> /10min	11	5.2	3.7	1.7
			degC	300	300	300	300
			Load	1.20	1.20	1.20	1.20
Moulding shrinkage (3.2mmt)	-	MD TD	%	0.2 - 0.4 0.2 - 0.4	0.1 - 0.3 0.1 - 0.3	0.1 - 0.3 0.1 - 0.3	0.1 - 0.3 0.1 - 0.3
<b>Mechanical properties</b>							
Tensile modulus	ISO 527-1 , 527-2	-	MPa	5700	7500	10500	13200
Yield stress			-	-	-	-	
Yield strain			%	-	-	-	-
Nominal strain at break			-	-	-	-	
Stress at 50% strain			MPa	-	-	-	-
Stress at break				74	80	92	102
Strain at break				2.7	2.1	1.8	1.4
Flexural strength	ISO 178	-	MPa	131	137	153	168
Flexural modulus			5300	6800	8400	10800	
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m <sup>2</sup>	46	34	33	31
Charpy notched impact strength		23 degC	kJ/m <sup>2</sup>	5	5	6	7
<b>Thermal properties</b>							
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	133 140	136 142	139 143	138 144
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	3.4E-05 5.0E-05	2.7E-05 4.5E-05	2.0E-05 4.0E-05	1.8E-05 3.9E-05
Flammability	UL94	-	-	-	-	-	-
<b>Electrical properties</b>							
Relative permittivity	IEC 60250	100Hz 1MHz	-	-	-	-	-
Dissipation factor	IEC 60250	100Hz 1MHz	-	-	-	-	-
Volume resistivity	IEC 60093	-	ohm-m	-	-	-	-
Surface resistivity	IEC 60093	-	ohm	-	-	-	-
Electric strength	IEC 60243-1	1mmt	MV/m	-	-	-	-
		2mmt	-	-	-	-	
		3mmt	-	-	-	-	
Comparative tracking index (CTI)	UL746A	-	-	3	4	4	4
				GSH2020DF (HB 0.4mm)	GSH2030DF (HB 0.4mm)		

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

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