

Dupilon

Polycarbonate Resin

Properties	Test Method	Terms	Units	Carbon+Glassfiber Reinforced		
				CGF1010R2	CGF1020KR	CGF2010KR
					High Flowablility	High Flowablility
				CF+GF	CF+GF	CF+GF
				10%+10%	10%+20%	20%+10%
				-	-	-
Physical properties						
Density	ISO 1183	-	g/cm ³	1.31	1.38	1.35
Water absorption		23degC, 50%RH 23degC, Underwater	%	- 0.11	- 0.09	- 0.09
Rheological properties						
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	6.9	6.2	4.3
Melt Volume-flow Rate			cm ³ /10min	6.1	4.6	3.5
			degC	300	300	300
			Load	kgf	1.20	1.20
Moulding shrinkage (3.2mmt)	-	MD TD	%	0.1 - 0.3 0.2 - 0.4	0.05-0.2 0.2-0.4	0.02 - 0.15 0.15 - 0.35
Mechanical properties						
Tensile modulus	ISO 527-1 , 527-2	-	MPa	7200	13000	17300
Yield stress			-	-	-	
Yield strain			%	-	-	-
Nominal strain at break			-	-	-	
Stress at 50% strain			MPa	-	-	-
Stress at break				91	127	163
Strain at break			%	2.0	1.7	1.3
Flexural strength	ISO 178	-	MPa	147	202	256
Flexural modulus				6900	12800	15000
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m ²	50	35	46
Charpy notched impact strength		23 degC	kJ/m ²	10	9	10
Thermal properties						
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	142 148	141 145	138 144
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	2.4E-05 5.9E-05	1.3E-05 5.4E-05	1.1E-05 5.3E-05
Flammability	UL94	-	-	-	-	-
Electrical properties						
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 2mmt 3mmt	MV/m	-	-	-
Comparative tracking index (CTI)	UL746A	-	-	-	-	-
					CGH1020KR (HB 0.4mm)	CGH2010KR (HB 0.4mm)

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

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