

NOVADURAN®

Polybutylene Terephthalate Resin

				GF Reinforced Alloy Flame Retardant		
Properties	Test Method	Terms	Units	5810GN2-15	5810GN2-30	5810GN6-30
				Low Warpage	Low Warpage	Low Warpage
				GF	G F	G F
				15	30	30
Physical properties						
Density	ISO 1183	-	g/cm ³	1.40	1.58	1.58
Water absorption	-	23degC, Underwater	%	0.08	0.08	0.08
Rheological properties						
Melt Mass-flow Rate	ISO 1133	Temperature Load	g/10min	15	13	13
Melt Volume-flow Rate			cm ³ /10min	11	9	9
			degC	250	250	250
			kg	2.16	2.16	2.16
Moulding shrinkage (1mmt)	-	MD	%	0.2	0.1	0.1
		TD		0.5	0.5	0.5
Moulding shrinkage (3mmt)	-	MD	%	0.3	0.2	0.2
		TD		0.6	0.6	0.6
Mechanical properties						
Tensile modulus	ISO 527-1 , 527-2	-	MPa	6400	11500	11500
Yield stress			-	-	-	
Yield strain			%	-	-	-
Nominal strain at break			-	-	-	
Stress at 50% strain			MPa	-	-	-
Stress at break				90	115	115
Strain at break			%	2.4	1.5	1.5
Flexural strength	ISO 178	-	MPa	135	175	175
Flexural modulus				5800	10000	10000
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m ²	26	60	60
Charpy notched impact strength		23 degC	kJ/m ²	6	11	11
Thermal properties						
Melting temperature	ISO 11357-3		degC	224	223	223
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	140 190	170 205	170 205
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	3.E-05 8.E-05	3.E-05 7.E-05	3.E-05 7.E-05
Flammability	UL94	0.4mmt	-	-	-	-
Flammability	UL94	0.8mmt	-	V-0	V-0	V-0
Flammability	UL94	1.6mmt	-	V-0	V-0	V-0
Flammability	UL94	3.2mmt	-	V-0	V-0	V-0
GWFI(Glow-wire flammability test method for materials)	IEC 60695-2-12	3.0mmt	-	equal to 960degC	equal to 960degC	equal to 960degC
GWIT(Glow-wire ignitability test method for materials)	IEC 60695-2-13	3.0mmt	-	equal to 700degC	equal to 725degC	equal to 725degC
Electrical properties						
Relative permittivity	IEC 60250	1MHz	-	3.2	3.8	3.8
Dissipation factor	IEC 60250	1MHz	-	0.017	0.015	0.015
Volume resistivity	IEC 60093	-	ohm-m	1.E+14	1.E+14	1.E+14
Surface resistivity	IEC 60093	-	ohm	1.E+15	1.E+15	1.E+15
Electric strength	IEC 60243-1	1mmt		20	-	-
		2mmt	MV/m	-	20	20
		3mmt		-	-	-
Comparative tracking index	UL746A	-	-	PLC3	PLC3	PLC2

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

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