

NOVADURAN®

Polybutylene Terephthalate Resin

Polybutylene Terephthalate Resin				GF Reinforced Alloy			
Properties	Test Method	Terms	Units	5308G30	5308F20	5710G30S2	5710F40
				Good Surface	High Gloss	Good Surface	Low Warpage
				GF	GF	GF	GF
				30	30	30	30
Physical properties							
Density	ISO 1183	-	g/cm³	1.52	1.49	1.51	1.57
Water absorption	-	23degC, Underwater	%	0.07	0.10	0.07	0.07
Rheological properties							
Melt Mass-flow Rate	ISO 1133	Temperature Load	g/10min	51	70	16	14
Melt Volume-flow Rate			cm³/10min	39	60	12	11
			degC	280	265	250	250
			kg	2.16	2.16	2.16	2.16
Moulding shrinkage (1mmt)	-	MD	%	0.2	1.0	0.2	0.2
		TD		0.6	1.0	0.6	0.5
Moulding shrinkage (3mmt)	-	MD	%	0.3	1.3	0.3	0.3
		TD		0.9	1.3	0.9	0.6
Mechanical properties							
Tensile modulus	ISO 527-1 , 527-2	-	MPa	9200	5200	10000	10500
Yield stress			-	-	-	-	
Yield strain			%	-	-	-	-
Nominal strain at break			-	-	-	-	
Stress at 50% strain			MPa	-	-	-	
Stress at break	ISO 178	-	MPa	114	55	131	117
Strain at break			%	2.3	2.3	2.2	1.8
Flexural strength	ISO 178	-	MPa	200	95	200	178
Flexural modulus			MPa	9000	5000	9200	9600
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m²	48	-	52	50
Charpy notched impact strength		23 degC	kJ/m²	6	2	9	9
Thermal properties							
Melting temperature	ISO 11357-3		degC	-	-	-	224
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	180 218	110 190	191 217	200 220
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	3.E-05 6.E-05	- -	3.E-05 6.E-05	4.E-05 6.E-05
Flammability	UL94	0.4mmt	-	-	-	-	-
Flammability	UL94	0.8mmt	-	HB	-	HB	-
Flammability	UL94	1.6mmt	-	-	-	-	-
Flammability	UL94	3.2mmt	-	-	-	-	-
GWFI(Glow-wire flammability test method for materials)	IEC 60695-2-12	3.0mmt	-	-	-	-	-
GWIT(Glow-wire ignitability test method for materials)	IEC 60695-2-13	3.0mmt	-	-	-	-	-
Electrical properties							
Relative permittivity	IEC 60250	1MHz	-	3.3	3.3	3.4	3.4
Dissipation factor	IEC 60250	1MHz	-	0.014	0.014	0.020	0.020
Volume resistivity	IEC 60093	-	ohm-m	1.E+14	1.E+14	1.E+14	1.E+14
Surface resistivity	IEC 60093	-	ohm	1.E+15	1.E+15	1.E+15	1.E+15
Electric strength	IEC 60243-1	1mmt	MV/m	27	-	28	28
		2mmt		23	-	24	24
		3mmt		-	-	-	-
Comparative tracking index	UL746A	-	-	-	-	-	-

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

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