

NOVADURAN®

Polybutylene Terephthalate Resin

				GF Reinforced Flame Retardant		
Properties	Test Method	Terms	Units	5010GN6-30TM4	5010GN6-15M8AM	5010GN6-30M8AM
				Toughness		
				GF	GF	GF
				30	15	30
Physical properties						
Density	ISO 1183	-	g/cm ³	1.61	1.54	1.62
Water absorption	-	23degC, Underwater	%	0.08	0.10	0.10
Rheological properties						
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	18	32	27
Melt Volume-flow Rate			cm ³ /10min	15	25	20
			degC	250	250	250
			Load	2.16	2.16	2.16
Moulding shrinkage (1mmt)	-	MD	%	0.3	0.5	0.3
		TD		0.8	1.0	0.8
Moulding shrinkage (3mmt)	-	MD	%	0.3	0.5	0.3
		TD		1.2	1.5	1.3
Mechanical properties						
Tensile modulus	ISO 527-1 , 527-2	-	MPa	10000	6200	10000
Yield stress			-	-	-	
Yield strain			%	-	-	
Nominal strain at break			-	-	-	
Stress at 50% strain			-	-	-	
Stress at break			MPa	135	100	130
Strain at break			%	2.2	4.0	3.0
Flexural strength	ISO 178	-	MPa	210	150	190
Flexural modulus			9500	6000	9800	
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m ²	65	30	45
Charpy notched impact strength		23 degC	kJ/m ²	10	7	10
Thermal properties						
Melting temperature	ISO 11357-3		degC	224	224	224
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	205 220	205 220	205 220
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	3.E-05 6.E-05	4.E-05 7.E-05	3.E-05 6.E-05
Flammability	UL94	0.4mmt	-	-	-	V-0
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	960degC
GWIT(Glow-wire ignitability test method for materials)	IEC 60695-2-13	3.0mmt	-	equal to 725degC	equal to 725degC	775degC
Electrical properties						
Relative permittivity	IEC 60250	1MHz	-	4.0	3.1	3.2
Dissipation factor	IEC 60250	1MHz	-	0.020	0.015	0.015
Volume resistivity	IEC 60093	-	ohm-m	1.E+13	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	MV/m	23	23	24
		2mmt		-	-	-
		3mmt		-	-	-
Comparative tracking index	UL746A	-	-	-	PLC 2	PLC 2

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

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