

**NOVADURAN<sup>®</sup>**

Polybutylene Terephthalate Resin

				Unreinforced Flame Retardant		
Properties	Test Method	Terms	Units	5010N1	5010N5	5010N6
				Toughness	High Rigidity	
				-	-	-
				-	-	-
<b>Physical properties</b>						
Density	ISO 1183	-	g/cm <sup>3</sup>	1.44	1.42	1.42
Water absorption	-	23degC, Underwater	%	0.08	0.08	0.08
<b>Rheological properties</b>						
Melt Mass-flow Rate	ISO 1133	Temperature Load	g/10min	36	25	20
Melt Volume-flow Rate			cm <sup>3</sup> /10min	33	21	15
			degC	250	250	250
			kg	2.16	2.16	2.16
Moulding shrinkage(1mmt)	-	MD	%	1.3	1.4	1.4
		TD	%	1.3	1.4	1.4
Moulding shrinkage(3mmt)	-	MD	%	2.1	2.4	2.2
		TD	%	2.0	2.0	2.0
<b>Mechanical properties</b>						
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2400	2400	2500
Yield stress			MPa	56	56	58
Yield strain			%	4.2	4.4	4.3
Nominal strain at break			%	7	70	20
Stress at 50% strain			MPa	-	-	-
Stress at break			MPa	-	-	-
Strain at break	%	-	-	-		
Flexural strength	ISO 178	-	MPa	92	89	92
Flexural modulus			MPa	2400	2600	2700
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m <sup>2</sup>	85	85	85
Charpy notched impact strength		23 degC	kJ/m <sup>2</sup>	3	3	3
<b>Thermal properties</b>						
Melting temperature	ISO 11357-3		degC	224	224	224
Glass transition temperature	ISO 11357-2		degC	-	-	-
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	54 145	54 147	55 135
Vicat softening temperature	ISO 306	-	degC	-	-	-
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	9.E-05 9.E-05	1.E-04 1.E-04	9.E-05 9.E-05
Flammability	UL94	-	-	-	-	-
Flammability	UL94	0.8mmt	-	V-0	V-2	V-0
<b>Electrical properties</b>						
Relative permittivity	IEC 60250	100Hz	-	-	-	-
		1MHz	-	3.2	3.2	3.2
Dissipation factor	IEC 60250	100Hz	-	-	-	-
		1MHz	-	0.020	0.020	0.020
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	MV/m	22	21	21
		2mmt	MV/m	18	19	18
		3mmt	MV/m	-	-	-
Comparative tracking index	IEC 60112	-	-	-	-	-

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

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