

NOVADURAN®

Polybutylene Terephthalate Resin

				Unreinforced UL-HB type			
Properties	Test Method	Terms	Units	5010R3	5010R5	5010R5L	5010CR2
				High Viscosity	Medium Viscosity	Low Viscosity	High Cycle
				-	-	-	-
				-	-	-	-
Physical properties							
Density	ISO 1183	-	g/cm³	1.31	1.31	1.31	1.31
Water absorption	-	23degC, Underwater	%	0.10	0.10	0.10	0.08
Rheological properties							
Melt Mass-flow Rate	ISO 1133	Temperature Load	g/10min	24	27	39	19
Melt Volume-flow Rate			cm³/10min	21	25	36	18
			degC	250	250	250	250
			kg	2.16	2.16	2.16	2.16
Moulding shrinkage (1mmt)	-	MD	%	1.5	1.5	1.5	1.5
		TD		1.4	1.4	1.4	1.4
Moulding shrinkage (3mmt)	-	MD	%	2.2	2.2	2.2	2.2
		TD		2.0	2.0	2.0	2.0
Mechanical properties							
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2400	2400	2400	2500
Yield stress				54	54	54	56
Yield strain			%	4.4	4.4	4.4	4.2
Nominal strain at break				180	120	70	15
Stress at 50% strain			MPa	-	-	-	-
Stress at break				-	-	-	-
Strain at break		%		-	-	-	-
Flexural strength	ISO 178	-	MPa	84	85	84	87
Flexural modulus				2400	2400	2400	2500
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m²	NB	NB	NB	NB
Charpy notched impact strength		23 degC	kJ/m²	6	5	4	4
Thermal properties							
Melting temperature	ISO 11357-3		degC	224	224	224	224
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	54 136	54 136	54 136	56 138
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	1.E-04 1.E-04	1.E-04 1.E-04	1.E-04 1.E-04	1.E-04 1.E-04
Flammability	UL94	0.4mmt	-	-	-	-	-
Flammability	UL94	0.8mmt	-	HB	HB	HB	HB
Flammability	UL94	1.6mmt	-	HB	HB	HB	HB
Flammability	UL94	3.2mmt	-	HB	HB	HB	HB
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	-	3.2	3.2	3.2	3.2
Dissipation factor	IEC 60250	1MHz	-	0.020	0.020	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	22	22	22	22
		2mmt		17	17	17	17
		3mmt		-	-	-	-
Comparative tracking index		UL746A		-	-	PLC 0	PLC 0

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

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