

**NOVADURAN®**

Polybutylene Terephthalate Resin

				Unreinforced UL-HB type				
Properties	Test Method	Terms	Units	5010TRXA	5010TRX5	5010R8L	5010R8M	5010R8S
				Impact Modified	Highly Impact Modified	Lightly Improved Flexibility	Improved Flexibility	Highly Improved Flexibility
				-	-	-	-	-
<b>Physical properties</b>								
Density	ISO 1183	-	g/cm <sup>3</sup>	1.27	1.26	1.31	1.30	1.29
Water absorption	-	23degC, Underwater	%	0.10	0.10	0.10	0.09	0.08
<b>Dimensional properties</b>								
Moulding shrinkage (1mmt)	-	MD	%	1.5	1.5	1.5	1.5	1.5
		TD		1.4	1.4	1.4	1.4	1.4
Moulding shrinkage (3mmt)	-	MD	%	2.2	2.3	2.2	2.3	2.3
		TD		2.0	2.1	2.0	2.1	2.1
<b>Mechanical properties</b>								
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2400	2200	2000	1600	1400
Yield stress			51	47	47	44	42	
Yield strain			%	4.4	3.1	5	11	13
Nominal strain at break			170	140	200	220	250	
Stress at 50% strain			MPa	-	-	-	-	-
Stress at break			%	-	-	-	-	-
Strain at break								
Flexural strength	ISO 178	-	MPa	80	67	62	57	52
Flexural modulus			2400	2400	2000	1500	1300	
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m <sup>2</sup>	NB	NB	NB	NB	NB
Charpy notched impact strength		23 degC	kJ/m <sup>2</sup>	7	9	5	6	6
<b>Thermal properties</b>								
Melting temperature	ISO 11357-3		degC	224	224	224	222	220
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa	degC	54	52	54	52	50
		0.45MPa		136	130	138	135	130
Coefficient of Linear thermal expansion	ISO 11359-2	MD	1/degC	1.E-04	1.E-04	1.E-04	1.E-04	1.E-04
		TD		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	HB
Flammability	UL94	1.6mmt	-	-	-	HB	HB	HB
Flammability	UL94	3.2mmt	-	-	-	HB	HB	HB
<b>Electrical properties</b>								
Relative permittivity	IEC 60250	1MHz	-	3.2	3.2	3.2	3.2	3.2
Dissipation factor	IEC 60250	1MHz	-	0.020	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	1.E+14
Surface resistivity	IEC 60093	-	ohm	1.E+15	1.E+15	1.E+15	1.E+15	1.E+15
Electric strength	IEC 60243-1	1mmt	MV/m	22	22	22	22	22
		2mmt		17	17	17	17	17
		3mmt		-	-	-	-	-
Comparative tracking index	UL746A	-	-	-	-	PLC 0	PLC 0	PLC 0

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