

NOVAREX

Polycarbonate Resin

Properties	Test Method	Terms	Units	Basic			
				M7020AD2	7020R	7022R	
				Optical Disk	High Flowability	Low Viscosity	
				-	-	-	
				-	-	-	
				-	-	-	
Physical properties							
Density	ISO 1183	-	g/cm ³	1.20	1.20	1.20	
Water absorption		23degC, 50%RH 23degC, Underwater	%	- 0.24	- 0.24	- 0.24	
Rheological properties							
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	63	19	14	
Melt Volume-flow Rate			cm ³ /10min	60	18	13	
			degC	300	300	300	
		Load	kgf	1.20	1.20	1.20	
Moulding shrinkage (3.2mmt)	-	MD TD	%	0.4 - 0.6 0.4 - 0.6	0.5 - 0.7 0.5 - 0.7	0.5 - 0.7 0.5 - 0.7	
Mechanical properties							
Tensile modulus	ISO 527-1 , 527-2	-	MPa	2400	2400	2400	
Yield stress					62	62	60
Yield strain			%		6.5	6.6	6.9
Nominal strain at break					80	120	140
Stress at 50% strain			MPa		-	-	-
Stress at break							
Strain at break	%						
Flexural strength	ISO 178	-	MPa	93	93	93	
Flexural modulus					2300	2300	2300
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m ²	NB	NB	NB	
Charpy notched impact strength		23 degC	kJ/m ²	7	9	67	
Thermal properties							
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	121 136	123 138	124 139	
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	6.5E-05 6.6E-05	6.5E-05 6.6E-05	6.5E-05 6.6E-05	
Flammability	UL94	-	-	-	-	-	
Electrical properties							
Relative permittivity	IEC 60250	100Hz 1MHz	-	3.1	3.1	3.1	
					-	3.1	3.1
Dissipation factor	IEC 60250	100Hz 1MHz	-	0.0006	0.0006	0.0006	
					-	0.0090	0.0090
Volume resistivity	IEC 60093	-	ohm-m	3.E+14	3.E+14	3.E+14	
Surface resistivity	IEC 60093	-	ohm	6.E+15	6.E+15	6.E+15	
Electric strength	IEC 60243-1	1mmt	MV/m	-	-	-	
		2mmt		24	24	24	
		3mmt		17	17	17	
Comparative tracking index (CTI)	UL746A	-	-	same as 2	same as 2	same as 2	
					7020IR (ice color)	7022IR (ice color) 7022IRF (FDA compliant)	

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

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