

NOVAMID

Polyamide Resin

Properties	Test Method	Terms	Units	Nylon 6 Injection Molding					
				1010C2	1011CH5	1013C5	1010N2	1010N2-2	1010N2-1ES
				Fast Cycle	Fast Cycle Heat Stabilized	Fast Cycle	Non-Halogen Flame Retardant	Non-Halogen Flame Retardant	Non-Halogen Flame Retardant
				-	-	-	-	-	-
				dry(50%RH)	dry(50%RH)	dry(50%RH)	dry(50%RH)	dry(50%RH)	dry(50%RH)
Physical properties									
Density	ISO 1183	-	g/cm ³	1.14	1.14	1.14	1.16	1.16	1.16
Water absorption	-	23degC, 50%RH	%	3.5	3.3	3.3	3.0	3.0	3.0
Rheological properties									
Melt Mass-flow Rate	ISO 1133	Temperature Load	g/10min	48	39	34	41	25	40
Melt Volume-flow Rate			cm ³ /10min	47	38	34	40	24	39
			degC	230	230	230	230	230	230
			kg	2.16	2.16	2.16	2.16	2.16	2.16
Moulding shrinkage (3mmt)	-	MD TD	%	1.2 1.3	1.2 1.3	1.2 1.3	1.0 1.1	1.0 1.1	1.0 1.1
Mechanical properties									
Tensile modulus	ISO 527-1 , 527-2	-	MPa	3100 (1000)	3100 (1000)	3100 (1000)	3600 (1500)	3600 (1300)	3600 (1500)
Yield stress			80 (40)	80 (40)	83 (50)	(50)	(40)	80 (40)	
Yield strain			%	5.2 (21.0)	5.2 (20.7)	5.2 (22.1)	(21.5)	(22.7)	4.8 (21.6)
1 strain at break			28 (250)	19 (317)	18 (227)	(189)	(208)	5 (196)	
50% strain at break			MPa	-	-	-	80	80	-
Strain at break	%	-	-	-	3.2	3.2	-		
Flexural strength	ISO 178	-	MPa	113 (38)	111 (36)	119 (40)	120 (47)	120 (45)	120 (46)
Flexural modulus			2900	2900 (890)	3000 (990)	3600 (1400)	3600 (1400)	3600 (1400)	
Charpy impact strength	ISO 179-1 , 179-2	23 degC	kJ/m ²	NB (NB)	NB (NB)	NB (NB)	90 (NB)	92 (NB)	90 (NB)
Charpy notched impact strength		23 degC	kJ/m ²	3 (31)	3 (31)	4 (31)	3 (12)	3 (12)	3 (12)
Thermal properties									
Melting temperature	ISO 11357-3	-	degC	-	-	-	-	-	-
Glass transition temperature	ISO 11357-2	-	degC	-	-	-	-	-	-
Temperature of deflection under load	ISO 75-1 , 75-2	1.80MPa 0.45MPa	degC	59	57	58	70	70	70
Vicat softening temperature	ISO 306	-	degC	-	-	-	-	-	-
Coefficient of Linear thermal expansion	ISO 11359-2	MD TD	1/degC	7.E-05 8.E-05	7.E-05 8.E-05	6.E-05 8.E-05	6.E-05 6.E-05	6.E-05 7.E-05	6.E-05 7.E-05
Flammability	UL94	-	-	-	-	-	-	-	-
Flammability	UL94	0.4mmt	-	-	-	-	-	-	-
Flammability	UL94	0.8mmt	-	V-2	V-2	V-2	V-0	V-0	V-0
Electrical properties									
Relative permittivity	IEC 60250	100Hz	-	4	4	4	4	4	4
		1MHz	-	4	4	4	4	4	4
Dissipation factor	IEC 60250	100Hz	-	0.0110	0.012	0.011	0.008	0.009	0.010
		1MHz	-	0.0230	0.022	0.022	0.019	0.019	0.020
Resistivity	IEC 60093	-	ohm-m	2.E+13	2.E+13	2.E+13	2.E+13	1.E+13	1.E+12
Resistivity	IEC 60093	-	ohm	2.E+14	2.E+14	2.E+14	2.E+14	1.E+14	2.E+14
Dielectric strength	IEC 60243-1	1mmt	MV/m	27	26	26	26	27	26
		2mmt	-	-	-	-	-	-	-
		3mmt	-	-	-	-	-	-	-
Comparative tracking index	IEC 60112	-	-	>600	>600	>600	575	>600	550

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