

**Reny**

Polyamide MXD6 Resin

				General					
Properties	Test Method	Terms	Units	1002H	1012H	1022H	1022HS	1032H	2041
				Glassfiber Reinforced	Glassfiber Reinforced	Glassfiber Reinforced	Glassfiber Reinforced	Glassfiber Reinforced	Glassfiber Mineral Reinforced
				G	G	G	G	G	G
				30%	40%	50%	50%	60%	40%
				dry(50%RH)	dry(50%RH)	dry(50%RH)	dry(50%RH)	dry(50%RH)	dry(50%RH)
<b>Physical properties</b>									
Density	ISO 1183	-	g/cm <sup>3</sup>	1.46	1.56	1.65	1.66	1.79	1.70
Water absorption		23degC, 50%RH		1.5	1.2	1.1	0.87	0.9	1.3
		23degC, Underwater		0.20	0.18	0.14	0.10	0.11	0.28
<b>Rheological properties</b>									
Melt Mass-flow Rate	ISO 1133	Temperature Load	g/10min	40.9	22.0	8.3	6	9.4	15.4
Melt Volume-flow Rate			cm <sup>3</sup> /10min	31.0	15.1	3.4	3	5.3	10.5
			degC	275	275	275	275	275	275
			kg	2.16	2.16	2.16	2.16	2.16	2.16
Moulding shrinkage	-	-	%	0.51	0.42	0.40	0.34	0.40	0.48
<b>Mechanical properties</b>									
Tensile modulus	ISO 527-1, 527-2		MPa	12100 (11100)	16600 (13600)	20400 (19300)	21850 (21000)	24700 (22400)	18300 (14100)
Stress at break			MPa	181 (148)	218 (177)	260 (214)	236 (233)	249 (204)	187 (136)
Strain at break			%	1.7 (1.8)	1.8 (1.8)	2.0 (2.1)	1.5 (1.6)	1.4 (1.4)	1.4 (1.6)
Flexural strength	ISO 178	-	MPa	286 (265)	349 (306)	390 (318)	384 (326)	429 (357)	299 (230)
Flexural modulus			MPa	11600 (10700)	14900 (13800)	18400 (15100)	19100 (19000)	23200 (21600)	16200 (12800)
Charpy impact strength	ISO 179-1, 179-2	23 degC	kJ/m <sup>2</sup>	35 (33)	52 (52)	72 (58)	61 (40)	54 (61)	47 (54)
Charpy notched impact strength		23 degC	kJ/m <sup>2</sup>	6.3 (6.2)	8.5 (8.9)	11.3 (12.2)	11.8 (12)	14.0 (13.9)	6.6 (7.3)
<b>Thermal properties</b>									
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	degC	224 (212)	226 (218)	230 (223)	245	230 (223)	214 (204)
		0.45MPa	degC	237 (232)	237 (232)	238 (233)	-	237 (232)	231 (225)
Vicat softening temperature	ISO 306	-	degC	-	-	-	-	-	-
Coefficient of Linear thermal expansion	ISO 11359-2	MD	1/degC	2.E-5	2.E-5	1.E-5	1.E-05	1.E-5	2.E-5
		TD	1/degC	5.E-5	5.E-5	4.E-5	4.E-05	4.E-5	5.E-5
Flammability	UL94	-	-	-	-	-	equal to HB	-	-
Flammability	UL94	1.6mmt	-	HB	HB	HB	-	HB	HB
<b>Electrical properties</b>									
Relative permittivity	IEC 60250	100Hz	-	(5)	-	5 (5)	-	(6)	5 (8)
		1MHz	-	(4)	-	5 (5)	4.7	(5)	5 (5)
Dissipation factor	IEC 60250	100Hz	-	(0.020)	-	0.007 (0.020)	-	(0.020)	0.008 (0.096)
		1MHz	-	(0.016)	-	0.008 (0.017)	0.009	(0.013)	0.009 (0.038)
Volume resistivity	IEC 60093	-	ohm-m	1E+14 (2E+13)	-	2E+14 (1E+13)	1.E+14	2E+13 (8E+12)	(2E+11)
Surface resistivity	IEC 60093	-	ohm	7E+14 (2E+14)	-	1E+16 (8E+14)	5.E+15	2E+14 (8E+14)	(5E+12)
Electric strength	IEC 60243-1	1mmt	MV/m	31 (29)	-	27 (25)	33	26 (26)	22 (21)
		2mmt	MV/m	27 (22)	-	-	24	20 (20)	18 (15)
		3mmt	MV/m	-	-	-	-	-	-
Comparative tracking index	IEC 60112	-	-	525 (550)	-	575 (550)	-	550 (600<)	500 (500)
	UL746A	-	-	-	-	-	-	-	-

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

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