

Reny

Polyamide MXD6 Resin

Properties	Test Method	Terms	Units	Low Friction & Wear Resistance					
				W38S2	G07S	G09S	G16S	F34	F34S
				Mineral Reinforced	Glassfiber Reinforced	Glassfiber Reinforced	Carbonfiber Reinforced	Potassium-Titanate Whisker Reinforced	Potassium-Titanate Whisker Reinforced
				W	G	G	C	W	W
				30%	20%	50%	20%	30%	30%
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	1.64	1.52	1.71	1.43	1.59	1.59
Water absorption		23degC, 50%RH		1.00	1.10	0.90	1.10	-	-
		23degC, Underwater		0.12	0.13	0.10	0.12	0.24	0.23
Rheological properties									
Melt Mass-flow Rate	ISO 1133	Temperature	g/10min	48.5	15.7	4.6	8.8	19.1	-
Melt Volume-flow Rate			cm ³ /10min	31.2	10.9	2.7	6.1	11.5	-
			degC	275	275	275	275	275	-
			kg	2.16	2.16	2.16	2.16	2.16	-
Moulding shrinkage	-	-	%	0.44	0.43	0.23	0.15	0.65	0.59
Mechanical properties									
Tensile modulus	ISO 527-1, 527-2		MPa	16200 (15900)	9200 (9100)	19700 (19000)	20200 (19900)	13100	11400
Stress at break			MPa	121 (111)	155 (136)	250 (220)	230 (205)	105	102
Strain at break			%	0.9 (0.8)	2.5 (2.5)	1.9 (2.1)	1.6 (1.6)	1.0	1.0
Flexural strength	ISO 178	-	MPa	226 (216)	230 (200)	382 (338)	338 (294)	230	217
Flexural modulus			MPa	15200 (15100)	9000 (8900)	18700 (18400)	18800 (18200)	12300	12300
Charpy impact strength	ISO 179-1, 179-2	23 degC	kJ/m ²	18 (22)	38 (37)	61 (40)	50 (39)	33	25
Charpy notched impact strength		23 degC	kJ/m ²	1.8 (2.1)	6.0 (5.9)	11 (10)	4.4 (4.5)	1.9	2.4
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	degC	210 (206)	236 (227)	246 (240)	240 (234)	183	206
		0.45MPa	degC	239 (239)	255 (251)	255 (253)	0	225	-
Vicat softening temperature	ISO 306	-	degC	-	-	-	-	-	-
Coefficient of Linear thermal expansion	ISO 11359-2	MD	1/degC	2.E-5	-	-	-	-	-
		TD	1/degC	4.E-5	-	-	-	-	-
Flammability	UL94	-	-	eual to HB	-	eual to HB	eual to HB	-	eual to HB
Flammability	UL94	1.6mmt	-	-	HB	-	-	HB	-
Electrical properties									
Relative permittivity	IEC 60250	100Hz	-	-	-	-	-	-	-
		1MHz	-	-	-	-	-	-	-
Dissipation factor	IEC 60250	100Hz	-	-	-	-	-	-	-
		1MHz	-	-	-	-	-	-	-
Volume resistivity	IEC 60093	-	ohm-m	2E+13	-	-	-	-	-
Surface resistivity	IEC 60093	-	ohm	2E+14	-	-	-	-	-
Electric strength	IEC 60243-1	1mmt	MV/m	26	-	-	-	-	-
		2mmt	MV/m	-	-	-	-	-	-
		3mmt	MV/m	-	-	-	-	-	-
Comparative tracking index	IEC 60112	-	-	-	-	-	-	-	-
	UL746A	-	-	-	-	-	-	-	-

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

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