

		Polyamide 11	Polyamide 12	Reinforced Polyamide 12		TPU	Flame retardant PA12
		PA 1101	PA 2221	Alumide	PA3200GF	TPU Flex 90	PA 2241 FR
<b>Mechanical Properties</b>							
Hardness (15s)		(Shore D) 75	(Shore D) 75	(Shore D) 76	(Shore D) 80	(Shore A) 90	-
Tensile Modulus (X / Y / Z)	GPa	1.60 / 1.60 / 1.60	1.65 / 1.65 / 1.60	3.80 / 3.80 / -	3.20 / 3.20 / 2.50	- / - / -	1.60 / 1.60 / 1.60
Tensile Strength (X / Y / Z)	MPa	48 / 48 / 48	47 / 47 / 40	48 / 48 / 40	51 / 51 / 47	10 / 10 / -	44 / 44 / 41
Strain at break	%	45 / 45 / 30	16 / 16 / 4	4 / 4 / -	9 / 9 / 5.5	- / - / -	22 / 22 / 9
Flexural modulus	GPa	-	1390	3600	2900	10	-
Flexural strength	MPa	-	59	72	73	-	-
Flexural strain at flexural strength	%	-	8,4	-	-	-	-
Charpy Impact Strength	kJ/m <sup>2</sup>	-	34,5	29	35	-	-
Charpy notched impact strength	kJ/m <sup>2</sup>	7,8	3,9	4,6	5,4	-	-
Izod impact notched	kJ/m <sup>2</sup>	-	-	-	4,2	-	-
Izod impact unnotched	kJ/m <sup>2</sup>	-	-	-	21	-	-
Density	kg/m <sup>3</sup>	990	970	1360	1220	1050	1000
<b>Thermal Properties</b>							
Melting Temperature	°C	201	187	176	176	154	185
Vicat softening temperature	°C	-	-	169	166	-	-
HDT (1.80MPa / 0.45MPa)	°C	46 / 180	70 / 157	144 / 175	96 / 157	- / -	84 / 154
<b>Electrical Properties</b>							
Volume resistivity	Ohm*m	-	-	3,00E+12	-	-	-
Relative permittivity (100Hz / 1MHz)	-	-	-	13 / 10	-	-	-
Dissipation factor (1MHz)	E-4	-	-	180	-	-	-
Surface resistivity	Ohm	-	-	5E+14	-	-	-
Electric strength	kV/mm	-	-	0,1	-	-	-
<b>Other properties</b>							
Flame retardant		No	No	No	No	No	Yes
Bio-Compatibility		No	Yes	No	No	No	No