

Nylon 6 - Cast

Technical Details

Physical	Unit	Test Method	Result
Specific gravity	g/cm ³	ISO 1183-1	1.14
Water absorption till saturation 23°C	%		9
Maximum service temp. Upper temp limit - long term	°C		70
Lower temp limit	°C		-40
Mechanical	Unit	Test Method	Result
Tensile strength	MPa	ISO 527-1/-2	80
Elongation at yield	%	ISO 527-1/-2	4
Tensile strength at break	MPa	ISO 527-1/-2	50
Unnotched Impact strength	kJ/m ²	ISO 179-1/1eU	no break
Notch impact strength	kJ/m ²	ISO 179-1/1eA	5.50
Ball indentation / Rockwell hardness	MPa	ISO 2039-2	88
Tensile modulus of elasticity	MPa	ISO 527-1/-2	3300
Thermal	Unit	Test Method	Result
Heat deflection temperature HDT/B	°C	ISO 75-1/-2	70
Coefficient of linear thermal expansion 23°C - 100°C	m/(m.K)		105
Thermal conductivity at 23°C	W/mK		0.28
Electrical	Unit	Test Method	Result
Volume resistivity	Ω x m	IEC 62631-3-1	> 10 ¹³
Surface resistivity	Ω	ANSI/ESD STM11.11	> 10 ¹²
Dielectric constant at 1MHz		IEC 62631-2-1	3.30
Dielectric loss factor at 1 MHz		IEC 62631-2-1	0.021
Dielectric strength	kV/mm	IEC 60243-1	25
Additional Data	Unit	Test Method	Result
Food compliance - FDA		FDA (Natural)	yes
Food compliance - EU		EU 10/2011 (Natural)	yes
Flammability	Unit	Test Method	Result
Fire performance		UL 94 (3mm thickness)	HB

All information is for guide purposes only. The data has been taken from standard test results provided by our manufacturers