

## Cast Nylon 6 - Black & Natural

Physical Properties	Unit	Test Method	Result
Specific gravity	g/cm <sup>3</sup>	ISO 1183-1	1.15
Water absorption till saturation 23°C	%		6.5
Maximum service temp. Upper temp limit - Long term	°C		90
Lower temp limit	°C		-30
Mechanical Properties	Unit	Test Method	Result
Tensile strength	MPa	ISO 527-1/-2	88
Elongation at yield	%	ISO 527-1/-2	5
Tensile strength at break	MPa	ISO 527-1/-2	25
Unnotched Impact strength	kJ/m <sup>2</sup>	ISO 179-1/1eU	no break
Notch impact strength	kJ/m <sup>2</sup>	ISO 179-1/1eA	3
Ball indentation / Rockwell hardness	MPa	ISO 2039-1/2039-2	M88
Shore-D		ISO 868	80
Flexural modulus of elasticity	MPa	ISO 178	3280
Tensile modulus of elasticity	MPa	ISO 527-1/-2	3600
Thermal Properties	Unit	Test Method	Result
Vicat-softening point VST/B/50	°C	ISO 306	-
Heat deflection temperature HDT/B	°C	ISO 75-1/-2	80
Coefficient of linear thermal expansion 23°C - 100°C	m/(m.K)		90
Thermal conductivity at 23°C	W/mK		0.29
Electrical Properties	Unit	Test Method	Result
Volume resistivity	Ω x m	IEC 62631-3-1	> 10 <sup>13</sup>
Surface resistivity	Ω	ANSI/ESD STM11.11	> 10 <sup>12</sup>
Dielectric constant at 1MHz		IEC 62631-2-1	3.2
Dielectric loss factor at 1 MHz		IEC 62631-2-1	0.016
Dielectric strength	kV/mm	IEC 60243-1	25
Additional Data	Unit	Test Method	Result
Food compliance - FDA		FDA (Natural & Blue)	yes
Food compliance - EU		EU 10/2011 (Natural & Blue)	yes
Flammability	Unit	Test Method	Result
Fire performance		UL 94 (3mm thickness)	HB
Optical	Unit	Test Method	Result

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