

Technical Data Sheet

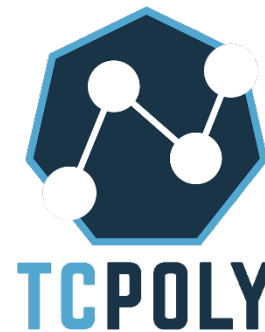
Ice9™ NYLON

Thermally conductive, electrically non-insulating plastic

Filament product code: TC-PA-175-1000

Pellet product code: TC-PA-000-1000

Properties based on 3D printed samples



GENERAL PROPERTIES		VALUE				
Base Material		Polyamide				
Color		Dark gray				
Density		1400 kg/m ³				
THERMAL PROPERTIES		METRIC		ENGLISH		ASTM
Thermal conductivity, in-plane		4	W/m-K	28	BTU·in/hr·ft ² ·°F	E1461
Thermal conductivity, through-plane		1	W/m-K	7	BTU·in/hr·ft ² ·°F	E1461
Specific heat		1200	J/kg-K	0.29	BTU/lb·°F	E1269
Coefficient of thermal expansion		40	ppm/ °C	22	ppm/°F	E831
Heat deflection temperature, 0.45 MPa		160	°C	320	°F	D648
Max. continuous temperature		200	°C	392	°F	*
MECHANICAL PROPERTIES		METRIC		ENGLISH		ASTM
Shore Hardness		70	D			D2240
Flexural modulus		4	GPa	580	ksi	D638
Tensile strength, Break		45	MPa	6.5	ksi	D638
Elongation at break		1	%	1	%	D638
Impact strength, Izod notched		80	J/m	1.5	lb-ft/in	D256
ELECTRICAL PROPERTIES		METRIC				ASTM
Volume resistivity		>10 ⁷	Ω-cm			D257

* Highest temperature recommended for operation of more than 1 hour and is based internal testing and not any recognized standard.

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