

# Technical Data Sheet

## Ice9™ PETG

Thermally conductive, electrically non-insulating plastic

Filament product code: TC-PETG-175-1000

Pellet product code: TC-PETG-000-1000

*Properties based on 3D printed samples*



GENERAL PROPERTIES	VALUE		
Base Material	Polyethylene terephthalate glycol		
Color	Dark gray		
Density	1350 kg/m <sup>3</sup>		
THERMAL PROPERTIES	METRIC	ENGLISH	ASTM
Thermal conductivity, in-plane	3 W/m-K	54 BTU·in/hr·ft <sup>2</sup> ·°F	E1461
Thermal conductivity, through-plane	0.8 W/m-K	17 BTU·in/hr·ft <sup>2</sup> ·°F	E1461
Specific heat	1150 J/kg-K	0.27 BTU/lb·°F	E1269
Coefficient of thermal expansion	51 ppm/°C	28 ppm/°F	E831
Heat deflection temperature, 0.455 MPa	120 °C	248 °F	D648
Max. continuous temperature	150 °C	302 °F	*
MECHANICAL PROPERTIES	METRIC	ENGLISH	ASTM
Shore Hardness	75 D		D785
Flexural Modulus	1.9 GPa	275 ksi	D638
Tensile Strength @ Break	51 MPa	7 ksi	D638
Elongation @ Break	5 %	5 %	D638
Impact strength, Izod notched @ 23°C	95 J/m	1.8 lb-ft/in	D256
ELECTRICAL PROPERTIES	METRIC	ASTM	
Volume resistivity	>10 <sup>8</sup> 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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# Technical Data Sheet

## Ice9™ PETG

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	Polyethylene terephthalate glycol	
Color	Dark gray	
Filament diameter	1.75 ± 0.1 mm	
TEMPERATURE SETTINGS	VALUE	UNITS
Extruder temperature	255-290	°C
Bed temperature	70-90	°C
Chamber temperature	40-55	°C
Cooling fan	Bridging only, 60	%
SLICING SETTINGS	VALUE	UNITS
Print speed	60-150	mm/s
Layer height	0.2-0.7	mm
Retraction distance	5	mm
Extra restart distance	0.5	mm
Infill for best thermal performance	95-100	%
ADDITIONAL GUIDELINES		
Nozzle diameter	0.4-1.0 mm	
Extruder type	Direct drive or Bowden	
Print bed preparation	PEI or glue stick on glass	
Storage instructions	Sealed bag	
Drying instructions	4 hour @ 70°C	

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