

Eel 3D Printing Filament

Fully Conductive, Flexible Filament for 3D Printers

Eel 3D printing filament is NinjaTek's first truly conductive, flexible filament. Eel's ~~355%~~ elongation allows for repeated movement without wear or cracking. You'll produce reliable, high-quality prints due to the consistent diameter. NinjaTek's Eel filament is chemical resistant to a variety of materials.

General Properties	Test Method	Imperial
Specific Gravity	ISO 2781	1.18 g/cm ³

Mechanical Properties	Dry / COND VALUE*	Test Standard	Unit
Flexural modulus, 23°C (73°F)	- / 310	ISO 178	MPa
Tensile modulus, 23°C (73°F), 1 mm/min	305 / 298	ISO 527-1/-2	MPa
Yield strain, 23°C (73°F), 50 mm/min	31 / 36	ISO 527-1/-2	%
Yield stress, 23°C (73°F), 50 mm/min	18 / 17	ISO 527-1/-2	MPa
Stress at break, 23°C (73°F), 50 mm/min	- / 29	ISO 527-1/-2	MPa
Nominal strain at break, 23°C (73°F), 50 mm/min	> 50 / > 50	ISO 527-1/-2	%
Hardness, Shore D, 15 s	- / 60	ISO 868	
Charpy unnotched impact strength, 23°C (73°F)	- / No break	ISO 179 1eU	
Charpy unnotched impact strength, -30°C (-22°F)	- / No break	ISO 179 1eU	
Charpy notched impact strength, 23°C (73°F)	No break / No break	ISO 179 1eA	
Charpy notched impact strength, -30°C (-22°F)	- / 18	ISO 179 1eA	kJ/m ²

*DRY: Dry As Molded (DAM) if pellet / Dry if powder.
COND: Conditioned.

Conductive Properties	Dry / COND VALUE*	Test Standard	Unit
Volume Resistance, 23°C (73°F)	- / 1.1E+5	IEC 62631-3-1	Ohm.m
Surface Resistance, 23°C (73°F)	- / 5500	IEC 62631-3-2	Ohm/sq

*DRY: Dry As Molded (DAM) if pellet / Dry if powder.
COND: Conditioned.

NinjaTek filament is capable of being printed by a variety of printers in a variety of configurations. This specification sheet gives results as they pertain to the defined test standard and specimen details. Different slicing and/or printing configurations, test conditions, ambient environments, etc. may result in different results.

NinjaTek makes no warranties of any type, express or implied, including, but not limited to, the warranties of fitness for a particular application.

Specific Gravity (0792): Results determined by nature of material.