

CPX-KM - Filament

CPX-KM is a low warp carbon-filled polypropylene. This specific formulation was to achieve excellent layer adhesion, extreme toughness and slight flex for comfort in the prosthetic market. Co-Developed with Filament Innovations, CPX-KM is most typically used for the prosthetic market, but also has been proven to create extremely tough parts for functional use in industrial and other medical applications.

To purchase this product please visit for more information.

Material Features:

- Balance of stiffness and flexibility
- Excellent impact resistance
- Good layer adhesion

Colors:

CPX is available in Black



Filament Specs.

Size	Ø Tolerance	Roundness
2.85mm	± 0.1mm +/- .020mm	≥95%

Material Properties

Description	Test Method	Typical value
Specific Gravity [g/cc]	ISO 1183	0.900
Melt Mass Flow Rate [gr/10 min]	ISO 1133	0.4
Impact Strength - Izod Method at 23°C [kJ/m ²]	ISO 180	35.9
Melting Temperature [°C]	ISO 527	230 ± 10
Elongation at Break [%]	ISO 527	-
Flexural Modulus [MPa]	ISO 178	3073
Tensile Strength (MPa)	ISO 527	40.2
Stress at Break [MPa]	ISO 527	15.1
Tensile elongation at yield [%]	ISO 527	5.60
Strain at Break [%]	ISO 527	100

Recommended 3D Print Processing Parameters

Nozzle temp	295-310°C (310°C is preferred on ICARUS)
Chamber Temp	NA
Bed Temp	85-90 °C
Bed Material	* PEI w/BuildTak Bond for PP
Print Speed	20 mm/s
Nozzle diameter	0.8 - 3.0mm

Parameter changes, type of printer, and environment can affect performance and quality of final print.

*Most materials will perform better if dried first at the recommended temperatures.

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