

Technical Data Sheet



Product name: CarbonFil™

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Version: v1

CarbonFil™ is a 20% long stringer carbon fibre reinforced filament – based on our HDglass™ high strength & performance modified PETG (PolyEthylene Terephthalate Glycol-modified) compound – and by that is extremely stiff and yet still very impact resistant.

CarbonFil™ filament is a very easy to print 3D printer filament as it is warp-free, can be printed without a heated bed, has a great thermal stability, an excellent flowing behaviour and a superb first- and interlayer adhesion and does not produce any odours during 3D printing.

Properties	Typical value	Test Method	Test condition
Physical			
Specific gravity	1.19 g/cc	ASTM D792	-
Melt flow rate	-	-	-
Water absorption	-	-	-
Moisture absorption	± 0.13%	-	-
Mechanical			
Impact strength	7.9 KJ/m ²	ASTM D256	Izod Notched @23° C (73° F)
Tensile strength	52.5 Mpa	ISO 527	@Yield 50mm/min (2 inch/min)
Tensile modulus	3800 Mpa	ISO 527	1mm/min
Elongation at break	8%	ISO 527	@ Break 50mm/min (2 inch/min)
Flexural strength	-	-	-
Flexural modulus	± 4600 Mpa	-	-
Hardness	109	ASTM D785	Rockwell R-scale
Thermal			
Print temperature	± 230 - 265° C	-	-
Melting temperature	-	-	-
Viscat softening temp.	± 85° C	ASTM D648	@ 0.455 Mpa (66psi)
Optical			
Haze	-	-	-
Transmittance	-	-	-
Gloss	-	-	-

Product details, certifications and compliance		Diameter	Tolerance	Roundness
HS Code	39169090	1.75mm	± 0.05mm	≥ 95%
REACH compliant	Yes	2.85mm	± 0.10mm	≥ 95%
RoHS certified	Yes			
FDA Approved	No			

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