

# Technical Data Sheet



**Product name:** Python Flex

Python Flex is a high-performance flexible thermoplastic polyurethane (TPU) filament, which is designed for high speed printing on both direct drive and Bowden style extruders. Python Flex is an extremely easy to print flexible filament which can be printed directly on a glass plate without having to use the heatbed.

Python Flex has a shore hardness of 98A and has great elastic properties as allows itself to be stretched up to 450% before breaking. Python Flex is extremely transparent in its natural form and has excellent resistance to oil, greases, microorganisms and abrasion.

Properties	Typical value	Test Method	Test condition
<b>Physical</b>			
Specific gravity	1.16 g/cc	ISO 1183	-
Melt flow rate	-	-	-
Water absorption	-	-	-
Moisture absorption	-	-	-
<b>Mechanical</b>			
Impact strength	No Break	ISO 179	Charpy Notched @23° C (73° F)
Tensile strength	50.0 Mpa	ISO 527 1/2	@Yield
Tensile modulus	150 Mpa	ISO 527	-
Elongation at break	450%	ISO 527 1/2	-
Flexural strength	-	-	-
Flexural modulus	-	-	-
Hardness	98A	ISO 7619-1	Shore A Hardness
<b>Thermal</b>			
Print temperature	± 220 - 250° C	-	-
Melting temperature	± 220 ± 10° C	-	-
Viscat softening temp.	± 138° C	ASTM D1525	B/2 (120° C/h, 50N)
<b>Optical</b>			
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			

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