

# Technical Data Sheet



**Product name:** STYX-12

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**Version:** v1

STYX-12 is an industrial PA12 grade nylon filament which combines excellent mechanical, chemical and hygroscopic properties with printability.

STYX-12 has a very low water absorption compared to other nylons and can be printed at relatively low temperatures. This combination of properties has resulted in high-performance and industrial-grade nylon which can be printed on a wide-range of FFF/FDM 3D printers.

Properties	Typical value	Test Method	Test condition
<b>Physical</b>			
Specific gravity	1.02 g/cc	ISO 1183	-
Melt flow rate	-	-	-
Water absorption	-	-	-
Moisture absorption	-	-	-
<b>Mechanical</b>			
Impact strength	14 KJ/m <sup>2</sup>	ISO 179	Charpy Notched @23° C (73° F)
Tensile strength	60.0 Mpa	ISO 527 -1/-2	@Yield
Tensile modulus	1400 Mpa	ISO 527	-
Elongation at break	>150%	ISO 527 -1/-2	0
Flexural strength	-	-	-
Flexural modulus	-	-	-
Hardness	81	ISO 868	Shore D Hardness
<b>Thermal</b>			
Print temperature	± 240 - 270° C	-	-
Melting temperature	± 250 ± 10° C	ISO 11357	-
Viscat softening temp.	± 105° C	ISO 868	264psi annealed
<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			
FDA compliant	Yes			

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