

# Technical Data Sheet



**Product name:** FlexiFil™

**Date of issue:** 09 April 2015

**Version:** v2

FlexiFil™ is a rubber-like high-performance TPC (Thermoplastic Co-Polyester) type of 3D printer filament. FlexiFil™ has unique flexural strength properties, as 3D printed objects with FlexiFil™ will have a “flexural memory”, allowing objects to return back to their original position after being bent.

The combination of flexibility, mechanical strength, durability, good resistance to chemicals, excellent UV resistance and extreme temperatures makes FlexiFil™ a unique filament.

Properties	Typical value	Test Method	Test condition
<b>Physical</b>			
Specific gravity	1.14 g/cc	ISO 1183	-
Melt flow rate	39 cm <sup>3</sup> /10min	ISO 1133	230° C/2.16Kg
Water absorption	± 0.69%	-	Saturated at 23° C
Moisture absorption	± 0.30%	-	Equilibrium 23° C/50% RH
<b>Mechanical</b>			
Impact strength	No Break	ISO 180/1A	Izod Notched @23° C (73° F)
Tensile strength	24 Mpa	ISO 527 -1/-2	Stress @ Break
Tensile modulus	95 Mpa	ISO 527 -1/-2	-
Elongation at break	530%	ISO 527 -1/-2	Nominal Strain at Break, 23° C
Flexural strength	-	-	-
Flexural modulus	-	-	-
Hardness	45D	ISO 868	Shore D Hardness (3s)
<b>Thermal</b>			
Print temperature	± 220 - 260° C	-	-
Melting temperature	± 180	ISO 11357-1/-3	10° C/min
Viscat softening temp.	-	-	-
<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 Approved	Yes			

Formfutura VOF	CoC: 55502105	Tel: +31 (0)20 893 4114
Haparandaweg 67 E5	VAT: NL851741083B01	Email: <a href="mailto:info@formfutura.com">info@formfutura.com</a>
1013 BD Amsterdam	EORI: NL851741083	Website: <a href="http://www.formfutura.com">www.formfutura.com</a>
The Netherlands		

All information supplied by or on behalf of Formfutura in relation to its products, whether in the nature of data, recommendations or otherwise, is supported by research and, in good faith, believed reliable, but Formfutura assumes no liability and makes no warranties of any kind, express or implied, including, but not limited to, those of title, merchantability, fitness for a particular purpose or non-infringement or any warranty arising from a course of dealing, usage, or trade practice whatsoever in respect of application, processing or use made of the forementioned information or product. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties or any consequence from the use of all such information. Typical values are indicative only and are not to be construed as being binding specifications.