

Technical Data Sheet

InnoFlex 40

Monofilament suitable for all commercially available leading brands 3D FDM/FFF printers

IDENTIFICATION OF THE MATERIAL

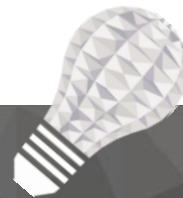
Trade name	InnoFlex 40
Chemical name	Thermoplastic Copolyester Elastomer
Chemical family	Biobased High Performance Thermoplastic Copolyester TPC
Use	3D-Printing
Company	Innofil3D BV

MATERIAL PROPERTIES

MATERIAL PROPERTIES		Test Method
Melting temperature (10°C/min)	158°C	ISO 11357-1/-3
Glass transition temperature Tg	-35°C	ISO 11357-1/-2
Density	1100 kg/m ³	ISO 1183
Stress at break	12 MPa	ISO 527-1/-2
Elongation at Break	270%	ISO 527-1/-2
Tensile modulus	50 MPa	ISO 527-1/-2
Shore D hardness	35	ISO 868
Food Contact	See page 2	
UV resistance	High	

MONOFILAMENT DATA

MONOFILAMENT DATA		Test Method
Diameter 1.75	1.75 ± 0.05 mm	Innofil3D
Diameter 2.85	2.85 ± 0.10 mm	Innofil3D
Max. roundness deviation 1.75	0.05 mm	Innofil3D
Max. roundness deviation 2.85	0.10 mm	Innofil3D
Color (RAL)	N.A.	Innofil3D
Print temperature guideline	230 ± 20°C	Innofil3D
Print speed guideline	Comparable or slower than PLA (PLA: 30 - 60 mm/s)	Innofil3D



This overview is generated using information obtained from the raw material suppliers.

Colour	Code	RAL nr.	Certifications/approvals				
			10/2011 ¹	FDA ²	BfR ³	2011/65 ⁴	EN 71-3 ⁵
Naturel	2501	N/A	Yes	Yes	Yes	Yes	Yes
Black	2502	9005	Yes	Yes	Yes	Yes	Yes
Blue	2505	5002	Yes	Yes	Yes	Yes	Yes
Yellow	2506	1003	Yes	Yes	Yes	Yes	Yes
Green	2507	6018	Yes	Yes	Yes	Yes	Yes
Red	2509	3020	Yes	<u>No</u>	Yes	Yes	Yes
Orange	2511	2008	Yes	<u>No</u>	Yes	Yes	Yes
Pink	2520	N/A	Yes	<u>No</u>	<u>No</u>	Yes	Yes

Certifications/approvals	Description
¹ Regulation EU No 10/2011:	Union Guidelines on Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food (Europe)
² FDA:	Food and Drug administration approval (U.S.A.)
³ BfR-empfehlung:	No migration of substances with a health risk occurs from the contact materials to the foods (Germany)
⁴ Directive 2011/65/EU:	The restriction of the use of certain hazardous substances in electrical and electronic equipment (Europe)
⁵ Directive 2009/48/EC; EN 71-3:	Safety of toys – Part 3: Migration of certain elements (Europe)

* RAL number used to manufacture the transparent colour.