

Technical Data Sheet Innofil3D ABS

Rev 140930

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

IDENTIFICATION OF THE MATERIAL

Trade name	Innofil3D ABS
Chemical name	Acrylonitrile Butadiene Styrene
Chemical family	Thermoplastic Copolymers
Use	3D-Printing
Company	Innofil3D BV

MATERIAL PROPERTIES

MATERIAL PROPERTIES		Test Method
Deflection temperature at 1.8 MPa	100 °C	ISO 75-2/A
Glass transition temperature	App. 105 °C	
Density	1.05 g/cm ³	ISO 1183/B
Tensile modulus	2280 MPa	ISO 527-2
Tensile stress at yield	45 MPa	ISO 527-2/50
Tensile strain at yield	2.5 %	ISO 527-2/50
Food contact	Listed on page 2	

MONOFILAMENT DATA

MONOFILAMENT DATA		Test Method
Diameter 1.75	1.75 ± 0.05 mm	Innofil3D
Diameter 2.85	2.85 ± 0.10 mm	Innofil3D
Diameter 3.00	3.00 ± 0.10 mm	Innofil3D
Max. roundness deviation 1.75	0.05 mm	Innofil3D
Max. roundness deviation 2.85	0.10 mm	Innofil3D
Max. roundness deviation 3.00	0.10 mm	Innofil3D
Net weight on reel	750 g ± 2%	Innofil3D
Print temperature guideline	235 ± 10 °C	Innofil3D
Print speed guideline	40 – 80 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	0101	N/A				Yes	Yes
Black	0102	9005				Yes	Yes
Red	0104	3020		No		Yes	Yes
Blue	0105	5022				Yes	Yes
Yellow	0106	1003				Yes	Yes
Green	0107	6018				Yes	Yes
Orange	0109	2008				Yes	Yes
Pink	0120	N/A		No		Yes	Yes
Silver	0121	9006				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)