

TECHNICAL DATA SHEET

Tarfuse® PETG AM

Filaments 3D

General Information

CHARACTERISTICS

Tarfuse® PETG AM filament containing with antibacterial properties confirmed by tests according to standard PN-EN-ISO 846:2019-05E.

Antimicrobial additives used in Tarfuse® PLA AM filament comply with European regulation on Biocidal Products (BPR, Regulation (EU) 528/2012) and with the requirements of the American Environmental Protection Agency - Antimicrobial Division of the Environmental Protection Agency (EPA)).

The used antibacterial additives are included on the list of chemical compounds approved by OEKO-TEX.

Tarfuse® PLA AM filament can be used for printing details with come into contact with food in accordance with Regulation (EU) 10/2011.

Antimicrobial additives used in Tarfuse® PLA AM filaments are approved by FDA - US Food & Drug Agency - section 176.170 chapter 21 US Code of Federal Regulations (21CFR176.170), table 2 and the approval of the Antimicrobial Division of the Environmental Protection Agency (EPA);

APPLICATIONS

Tarfuse® filament for Fused Filament Fabrication.

DELIVERY FORM

Tarfuse®: diameter 1,75±0,05mm;

PACKAGING

Packing available: 0,5kg +(197 g spool), 1kg +(275 g spool), 2kg +(602 g spool)

COLOUR

Natural, basic colors on request.

STORAGE

Tarfuse® filament must be stored in closed original packaging of the producer in dry rooms. Protect the packaging's against damage and against the influence of weather conditions.

NOTICE

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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RECOMENDED PRINT PROCESSING PARAMETERS

Nozzle temperature 240 - 250 °C
Build chamber temperature: Room temperature - 50 °C
Bed temperature: Room temperature - 80 - 90 °C
Bed material: PC/glass + PVA glue stick
Nozzle diameter $\geq 0,4$ mm
Print speed: 30 - 60 mm / s

Physical Properties	Unit	Data	ISO standard	Test conditions
Melting temperature; DSC	°C	-	11357-1-3	10°C/min.
Glass transition temperature; DSC	°C	80	11357-1-3	10°C/min.
Crystallization temperature; DSC	°C	-	11357-1-3	10°C/min.
Density	g/cm ³	1,27	1183	-
Melt volume-flow rate MVR	cm ³ /10min	40	1133	220°C/10 kg

Mechanical Properties	JM	XY	XZ	ZX	ISO standard	Test conditions
Print direction		Flat	On its edge	Upright		
Tensile strength	MPa	47	50	-	527-1,-2	50mm/min
Elongation at break	%	7,5	5,1	-	527-1,-2	50mm/min
Tensile E-modulus	MPa	1800	1900	-	527-1,-2	1mm/min
Flexural strength	MPa	80	-	-	178	2mm/min
Flexural modulus	MPa	1860	-	-	178	2mm/min
Charpy impact strength	kJ/m ²	50	-	-	179-1	1eU
Charpy impact strength (-30 °C)	kJ/m ²	-	-	-	179-1	1eU
Charpy notched impact strength	kJ/m ²	3	-	-	179-1	1eA
Vicat softening point	°C	-	-	-	306	50N
Heat deflection temperature	°C	-	-	-	75-1,-2	1,8 MPa

Print processing parameters:

Nozzle temperature: 2330 °C
Build chamber temperature: - °C
Bed temperature: 85 °C
Bed material: Glass+ PVA
Nozzle diameter $\geq 0,4$ mm
Print speed: 60 mm/