

TECHNICAL DATA SHEET

Tarfuse® PETG XR

Filaments 3D

General Information

CHARACTERISTICS	Tarfuse® PETG XR filament containing an X-ray shielding additive capable of printing X-ray shielding details as well as preoperative bone models, instruments, surgical guides, and X-ray protection.
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	1,48	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	46,5	51	12,3	527-1,-2	50mm/min
Elongation at break	%	6,5	4,8	0,6	527-1,-2	50mm/min
Tensile E-modulus	MPa	-	2580	1960	527-1,-2	1mm/min
Flexural strength	MPa	66	70	30	178	2mm/min
Flexural modulus	MPa	2400	2470	1780	178	2mm/min
Charpy impact strength	kJ/m ²	30	70	3,0	179-1	1eU
Charpy impact strength (-30 °C)	kJ/m ²	-	-	-	179-1	1eU
Charpy notched impact strength	kJ/m ²	2,7	2,2	-	179-1	1eA
Vicat softening point	°C	80	-	-	306	50N
Heat deflection temperature	°C	71	74	67	75-1,-2	1,8 MPa

Print processing parameters:

Nozzle temperature: 245 °C
Build chamber temperature: - °C
Bed temperature: 85 °C
Bed material: Glass+ PVA
Nozzle diameter $\geq 0,4$ mm
Print speed: 60 mm/s