TECHNICAL DATA SHEET

Tarfuse® PETG

Filaments 3D

Version No.: 1.1
Date: 11.2021

General Information

CHARACTERISTICS	**Tarfuse® PETG** produced from modified polyester poly(ethylene terephthalate). It is an amorphous polymer with good optical properties and high gloss. It is characterised by easy printing and good mechanical properties. Thanks to its strength and durability, it is dedicated for printing mechanical parts but also for decorative and illustrative workpieces. The very good bonding between the layers also recommends this material for printing waterproof workpieces.
APPLICATIONS	**Tarfuse®** filament for Fused Filament Fabrication.
DELIVERY FORM	Tarfuse ®: diameter 1,75±0,05mm; 2,85±0,1mm
PACKAGING	Packing available: 0,5kg +(197 g spool), 1kg +(275 g spool), 2kg +(602 g spool)
COLOUR	Natural, basic colors on request.
STORAGE	Tarfuse® PETG 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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RECOMEMDED PRINT PROCESSING PARAMETERS

Nozzle temperature 230 - 245˚C
Build chamber temperature: Room temperature - 50 ˚C
Bed temperature: Room temperature – 80 - 90˚ C
Bed material: PC/glass + PVA glue stick
Nozzle diameter ≥ 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.
Crystalization temperature; DSC	°C	-	11357-1-3	10°C/min.
Density	g/cm^3	1,27	1183	-
Melt volume-flow rate MVR	cm3/10min	41	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	44	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	-	-	-	178	2mm/min
Flexural modulus	MPa	-	-	-	178	2mm/min
Charpy impact strength	kJ/m^2	-	-	-	179-1	1eU
Charpy impact strength (-30 ˚C)	kJ/m^2	-	-		179-1	1eU
Charpy notched impact strength	kJ/m^2	-	-	-	179-1	1eA

Print processing parameters:
Nozzle temperature: 240˚C
Build chamber temperature: - ˚C
Bed temperature: 40 ˚ C
Bed material: Glass+ PVA
Nozzle diameter ≥ 0,4 mm
Print speed: slowly

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