PLASTICS ENGINEERED BY GEHR

FIL-A-GEHR®

Filaments for professional 3D printing

Wood

GEHR GmbH Casterfeldstraße 172 / D - 68219 Mannheim / T: +49 - 621/87 89 – 164 / 3D@gehr.de / www.filagehr.de

ECO FIL-A-GEHR® Wood consists of recycled wood fibers mixed with a recycled biopolymer. The raw material is made by Sulapac®.The printed material is haptic, visual and odor like wood. Nevertheless, it can be used to print extremely robust / stable parts.

FEATURES FIL-A-GEHR®

» Highest precision in diameter and roundness
» Filaments made of high-quality raw materials
» Compatible with all open-system 3D printers
» Low-emission and odour free
» Void-free
» Good layer adhesion
» Ideal flow behaviour while printing
» Carefully spooled and packed in easy to use aluminium-laminated resealable zip bags

PRODUCT RANGE

diameter	1 kg spool (~2,2 lbs)
1.75 mm 0.07”	●
2.85 mm 0.11”	●

Colours: ● brown

DISTINCTIVE FEATURES ECO FIL-A-GEHR® Wood

» Filaments made of high-quality and renewable raw materials
» Haptic, visual and odor like wood
» Food contact approval on the raw material
» High dimensional stability
» High modulus of elasticity
» Pressure nozzle temperature 210°C, printing plate temperature 60°C

TYPICAL APPLICATIONS

» Cosmetic jar
» Decorative components
» Sustainable Displays

RECYCLING

Box and spools are made of pure materials (PAP20 and PC) and are therefore recyclable through correct disposal.

GEHR, Specialist In Plastics – Premium Quality Since 1932

We extrude thermoplastic semi-finished materials and rank amongst the global leading producers of technical semi-finished products. FIL-A-GEHR® expands our product range with plastic filaments for 3D printers. GEHR produces the filaments in Mannheim and has been representing innovation and premium quality since 1932.

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TECHNICAL DATA ECO FIL-A-GEHR® Wood

Properties	Parameters	Units	Values
General Properties			
Specific gravity (ρ)	ISO 1183	g/cm³	1.26
Water absorption	ISO 62	%	0.65
Moisture	ISO 62	%	0.20
Mechanical Properties			
Tensile strength at yield (σ_S)	ISO 527	MPa	26
Elongation at yield (ε_S)	ISO 527	%	2.7
Tensile strength at break (σ_R)	ISO 527	MPa	27
Elongation at break (ε_R)	ISO 527	%	12
Impact strength (a_n)	ISO 179	kJ/m²	34
Notch impact strength (a_k)	ISO 179	kJ/m²	-
Ball indentation (H_k) / Rockwell hardness	ISO 2039-1	N/mm²	-
Shore-D	ISO 868		84
Flexural strength ($\sigma_{B\ 3,5\ \%}$)	ISO 178	MPa	56
Modulus of elasticity (E_t)	ISO 527	MPa	2300
Thermal Properties			
Vicat-softening point (VST/B/50)	ISO 306	°C	62
Heat deflection temperature (HDT/B)	ISO 75	°C	55
Glass transition temperature (T_G)	ISO 3146	°C	58
Melting temperature (T_m)	ISO 3146	°C	151
Printing Properties			
Pressure nozzle temperature		°C	200-220
Printing plate temperature		°C	60
Build chamber temperature		°C	-
Nozzle diameter	coated nozzel recommended	mm	0.6
Print speed		mm/s	55
Fan speed		%	100
Predrying temperature		°C	-
Predrying time		h	-

All properties are measured under laboratory conditions using the analytical method shown. The limits in these specifications apply only to data obtained using the specified test methods. Different analysis methods or analysis conditions can lead to different values.