


FIL-A-GEHR®

Filaments for professional 3D printing

Visit our Online-Shop:
www.filagehr.com



- » PEEK
- » PEEK 
- » PPSU
- » PA12
- » PETG
- » PC / ABS
- » PLA
- » ABS
- » Customized Solutions

FIL-A-GEHR® RANGE OF PRODUCTS

FIL-A-GEHR PEEK®

PEEK is one of the most powerful high-performance thermoplastics and offers exceptional mechanical, thermal and chemical properties.

- » Excellent combination of strength, stiffness and toughness
- » Low moisture absorption
- » Exceptional chemical resistance
- » Excellent sterilisation and hydrolysis resistance
- » Self-extinguishing, low smoke emission



MEDI-FIL-A-GEHR PEEK MG®

Is suitable for medical and pharmaceutical applications in direct body contact up to 24 hours. The filament is manufactured according to the ISO 13485 quality standard and meets the following requirements for biocompatibility:

- » ISO 10993-5: Tests for in-vitro cytotoxicity
- » ISO 10993-18: Chemical characterisation of materials
- » USP Class VI



FIL-A-GEHR PPSU®

Polyphenylsulfone is an amorphous material, with improved impact and hydrolysis resistance compared to PSU and PEI. The extremely high notch impact strength remains also after a heat aging.

- » High strength, rigidity and high toughness (also at low temperatures)
- » Very good dimensional stability and chemical resistance
- » Very good sterilizability

FIL-A-GEHR PA12®

Compared to other polyamides, FIL-A-GEHR PA 12® has the lowest moisture absorption. The very low tendency to warping combined with very good layer adhesion and low processing temperature makes PA 12 an ideal material for 3D printing.

- » Excellent chemical resistance, in particular against mineral oil and glycol
- » Low moisture absorption / high dimensional stability
- » High strength
- » Low wear / excellent sliding friction
- » High impact strength

FIL-A-GEHR PETG®

is characterized by high impact strength and is weather-resistant. It is also very easy to print.

- » High impact strength, self-bonding ability and melt strength
- » Easy processing
- » Very good self-linking capabilities
- » High strength and durability of the printed parts
- » 100 % recyclable
- » Colour natural: food approval



FIL-A-GEHR PC/ABS®

combines the high impact strength and heat deflection temperature of PC with the high toughness at low temperatures and the good processability of ABS.

- » Optimized flow behaviour
- » Heat deflection temperature between 110 °C (230 °F) and 135 °C (275 °F)
- » Methods such as painting and glueing can be applied
- » Very good electrical insulating properties
- » High notch impact strength values over wide temperature range
- » High dimensional stability
- » Low tendency to warping



FIL-A-GEHR PLA®

is based on the high-quality Ingeo™ biopolymer by NatureWorks. Perfect for a precise, smooth and very stable 3D printing.

- » High dimensional stability
- » Very good layer adhesion
- » No embrittlement on the spool (long term flexural test)
- » Raw material PLA has food contact and toy safety approval
- » High stiffness / high modulus of elasticity (3.380 MPa)
- » Colour natural: food approval



FIL-A-GEHR ABS®

is a high-quality thermoplastic polymer with excellent mechanical properties.

- » Low-emission and low-odour
- » FIL-A-GEHR ABS® compliant to European Toy Safety Norm EN71-3
- » Raw material ABS has food contact and medical approval
- » High stability and impact strength
- » Heat resistant up to approx. 100 °C (212 °F)
- » Easy post-treatment or surface treatment

All **FIL-A-GEHR®** - products have the following distinguishing features:

- » 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



FIL-A-GEHR® PRODUCT RANGE

	ø	1 kg-spool/ ~ 2,2 lbs	2,3 kg-spool/ ~ 5,1 lbs.
FIL-A-GEHR PEEK ¹	1,75 mm	●	
	2,85 mm	●	
MEDI-FIL-A-GEHR PEEK MG	1,75 mm	●	
FIL-A-GEHR PPSU	1,75 mm	● ●	
FIL-A-GEHR PA12	1,75 mm	●	
FIL-A-GEHR PETG	1,75 mm	● ● ○	
	2,85 mm	● ● ○	
FIL-A-GEHR PC/ABS	1,75 mm	●	●
	2,85 mm	●	●
FIL-A-GEHR ABS	1,75 mm	● ● ● ● ○ ●	● ● ● ● ○ ●
	2,85 mm	● ● ● ● ○ ●	● ● ● ● ○ ●
FIL-A-GEHR PLA	1,75 mm	● ● ● ● ○ ●	● ● ● ● ○ ●
	2,85 mm	● ● ● ● ○ ●	● ● ● ● ○ ●

Colours: black ~ RAL 9005, blue ~ RAL 5015, red ~ RAL 3000, white ~ RAL 9010, yellow ~ RAL 1037, grey ~ RAL 7011, natural, green transparent – more colours available on request

¹ FIL-A-GEHR PEEK is also available in a 200g (~ 0,44 lbs) spool

CUSTOMIZED SOLUTIONS

Development of customer-specific special designs with the tightest tolerances

- » Materials: Selection from our stock program, other polymers on request
- » Certificates: ISCC Plus certified on request
- » Fillers/ Additives: E.g. glass fibre, carbon fibre, talc, flame retardants, UV-stabilizers or electrically conductive carbon black
- » Dimensions: Various dimensions with tolerances of +/- 0.05 mm per coil
- » Colours: Complete colour palette as well as matt, translucent, transparent colours
- » Additional: Cleanroom according ISO 14644
Medical and food approval
Antibacterial filaments