



Additive Manufacturing

TECAFIL – Filaments for 3D Printing



About Ensinger

The Ensinger Group is engaged in the development, manufacture and sale of compounds, semi-finished materials, composites, technical parts and profiles made of engineering and high-performance plastics. Further development of proven production techniques, new applications and international expansion have earned this family-owned enterprise a place among the leaders in its field.

Over 50 years of experience in the extrusion of a broad range of engineering and high performance plastics, have led to high precision filaments. Ensinger produces filaments made from engineering and high temperature plastics and offers application advice to all issues around additive manufacturing of high performance plastics. Where high temperature plastics are required in FFF (fused filament fabrication) processes, Ensinger filaments are very well suited. There are stock materials available as well as the option to develop customized filaments.

The goal is to supply customers with high quality materials which can be used for new technologies like additive manufacturing.

Advantages of Ensinger TECAFIL

Additive manufacturing with Ensinger filaments made from engineering and high temperature plastics have many advantages:

- → Precision filaments (close tolerances, very round, homogenous material)
- → Development and optmization of materials
- \rightarrow Sample productions
- \rightarrow Large and small series production

Fields of application

- → Medical
- → Aerospace
- \rightarrow Automotive

- \rightarrow Mechanical
- \rightarrow Food
- \rightarrow Electronics

Our possibilities for the FFF 3D printing process in detail

We provide continuous support throughout the whole process; from the selection of materials right trough to production. Due to our compound production and development experts you are free to design and develop a material that meets your individual application requirements. Working in collaboration with a variety of partners, Ensinger covers the entire valueadded supply chain.

Ensinger





Customer benefits of Ensinger TECAFIL

Additive manufacturing with Ensinger filaments enables forms of products which are not possible with any other processing technology. This opens application fields for high performance plastics that were unthinkable before. Ensinger offers several benefits for different customer groups:







Our standard portfolio

Our filament materials are available in stock in the sizes ø 1.75 or 2.85 ± 0.05mm. Other dimensions or material requests can also be implemented to customer specifications.

TECAFIL PEEK LDS

Lona-term service temperature **Glass transition temperature** Modulus of elasticity

Tensile strength

Modification Laser direct structuring

TECAFIL PEEK CF30

Long-term service temperature **Glass transition temperature** Modulus of elasticity **Tensile strength**

Modification Carbon fibre 30%

TECAFIL PEEK

Lona-term service temperature **Glass transition temperature** Modulus of elasticity Tensile strength

TECAFIL PEKK 3D10

Long-term service temperature **Glass transition temperature** Modulus of elasticity **Tensile strength**

TECAFIL PES

Long-term service temperature **Glass transition temperature** Modulus of elasticity Tensile strength

TECAFIL PVDF

Long-term service temperature **Glass transition temperature** Modulus of elasticity Tensile strength

TECAFIL PPSU

Long-term service temperature **Glass transition temperature** Modulus of elasticity Tensile strength

TECAFIL PEI

Long-term service temperature **Glass transition temperature** Modulus of elasticity Tensile strength

TECAFIL PSU

Long-term service temperature **Glass transition temperature** Modulus of elasticity **Tensile strenath**

TECAFIL PA6 GF30

Long-term service temperature

Glass transition temperature

Modulus of elasticity

Tensile strength

Modification

Glass fibre 30%

TECAFIL PA12

Long-term service temperature -----**Glass transition temperature** Modulus of elasticity Tensile strength

Modification Electric deriving

Tensile strength

Modulus of elasticity

TECAFIL POM-C

Long-term service temperature

Glass transition temperature

PORTFOLIO

REQUEST

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Ensinger TECAFIL products allow new possibilities for your 3D printing with our stock materials and special modifications of engineering and high temperature plastics.

Together with a variety of partners in printing, we cover the entire supply chain and provide expertise through all stages of the value chain - from compound to final application.