

TECAFIL PSU natural - Filament

Chemical Designation

PSU (Polysulfone)

Colour

amber transparent

Density

1.234 g/cm³

Main features

→ Standard spool body: OD Ø 200mm,
width 55mm, Take up Ø52mm

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)	1 mm/min	2550	MPa	DIN EN ISO 527-1	
Tensile strength at yield	50mm/min	75	MPa	DIN EN ISO 527-1	
Elongation at yield	50mm/min	6	%	DIN EN ISO 527-1	
Notched impact strength (Charpy)	(23°C)	5.5	kJ/m ²	DIN EN ISO 179-1eU	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature	(DSC 10°C/min)	187	°C	DIN EN ISO 11357	
Service temperature	long term	160	°C	-	
Service temperature	short term	180	°C	-	
Other properties	parameter	value	unit	norm	comment
Molding shrinkage	parallel	0.70	%	DIN EN ISO 294-4	
Molding shrinkage	senkrecht	0.74	%	DIN EN ISO 294-4	
MVR	(360°C/10kg)	40	cm ³ /10 min	-	
Processing parameter	parameter	value	unit	norm	comment
Material temperature	(Spritzgießen, Extrusion)	330 - 390	°C	-	
Predrying	parameter	value	unit	norm	comment
Permissible residual moisture content		0.02	%	-	
Drying temperature		140	°C	-	
Drying time		4	h	-	

→ To achieve optimum mechanical properties, it is recommended to pre-dry the material with the above mentioned parameters.

→ The filament should preferably be stored in dry, normal temperature rooms and protected from direct sunlight.

Our information and statements reflect to current state of our knowledge and shall inform about the products and their applications. They do not assure or guarantee chemical resistance, quality of products and their merchantability in a legally binding way. Our standard products are not intended to be used in specially regulated markets with applications such as medical (especially medical and dental implants), drinking water, food, toys and cosmetics. Existing commercial patents have to be observed. The customer is solely responsible for the quality and suitability of products for the application and has to test usage and processing prior to use. Data sheet values are subject to periodic review, the most recent update can be found at ensingerplastics.com. Technical changes reserved. This variety complies with RoHS Directive 2011/65/EU as amended. European-made or imported varieties comply with REACH Regulation 1907/2006 / EC as amended Unless otherwise noted, these values were determined by tests on injection moulded samples, dry as moulded. The corresponding values and information are no minimum or maximum values, but guideline values that can be used primarily for comparison purposes for material selection. These values are within the normal tolerance range of product properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. In order to achieve optimum mechanical properties, pre-drying of the material is recommended with the parameters mentioned above Filaments should preferably be stored in dry rooms at normal temperatures and be protected from direct sunlight.