

## TECAFIL PSU natural - Filament

### Chemical Designation

PSU (Polysulfone)

### Colour

amber transparent

### Density

1.234 g/cm<sup>3</sup>

### Main features

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

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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 <sup>2</sup>	DIN EN ISO 179-1eU	
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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	-	
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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 <sup>3</sup> /10 min	-	
<i>Processing parameter</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Material temperature	(Spritzgießen, Extrusion)	330 - 390	°C	-	
<i>Predrying</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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.

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