

Compound No.: 8836

AKROTEK® PRELIMINARY PPS GF 30 natural (8836)

PPS GF 30

AKROTEK® PPS GF 30 natural (8836) is a 30% glass fiber-reinforced polyphenylene sulfide with high stiffness, strength, and excellent temperature resistance up to 240 °C. It is characterized by very high flowability, exceptional dimensional stability, and good chemical resistance. These properties make it particularly suitable for coolant-carrying components exposed to high temperatures and aggressive media, such as impellers.

Features

hydrolysis / chemically stabilised

Properties

Modulus	Strength	Impact
12.000 MPa	175 MPa	45 kJ/m²

Mechanical Properties

Tensile modulus	1 mm/min d.a.m.	12000 MPa
ISO 527-2	1 mm/min conditioned	11900 MPa
Tensile stress at break	5 mm/min d.a.m.	175 MPa
ISO 527-2	5 mm/min conditioned	175 MPa
Tensile strain at break	5 mm/min d.a.m.	1,9 %
ISO 527-2	5 mm/min conditioned	1,9 %
Charpy impact strength	23°C d.a.m.	45 kJ/m²
ISO 179-1/1eU	-30°C d.a.m.	45 kJ/m²
	-40°C d.a.m.	45 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A		
Tomportune or demonstration and the second	1,8 MPa	265 °C
ISO 75		



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Glass transition temperature ISO 11357-2	DSC, 2nd heating	90 °C
Melting temperature ISO 11357-3	DSC, 10K/min	280 °C

Flammability

Flammability	0,4 mm Wall thickness	V-0 Class
UL 94	0,8 mm Wall thickness	V-0 Class
	1,6 mm Wall thickness	V-0 Class
	3,2 mm Wall thickness	V-0 Class

General Properties

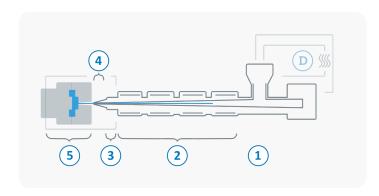
Density ISO 1183	23°C	1,55 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	0,1 - 0,3 %
Molding shrinkage ISO 294-4	flow transverse	0,2 - 0,4 % 0,5 - 0,7 %



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Processing

The values mentioned are recommendations. We only recommend desiccant / dry air dryers or vacuum dryers. Too long a drying time and the resulting residual moisture content below the lower limit can lead to filling problems and surface defects. The specified drying time refers to closed and undamaged bagged material. When processing from previously opened bags or from octabins with polyolefin inliners, a longer drying time may be necessary. It is recommended to check the residual moisture content after the drying process.



D	Drying time	2 - 6 h
	Drying temperature (τ <= -30°C)	120 - 140 °C
	Processing moisture	<0,02 %
1	Feed section	60 - 100 °C
2	Temperature Zone 1 - Zone 4	320 - 340 °C
3	Nozzle temperature	330 - 350 °C
4	Melt temperature	320 - 340 °C
5	Mold temperature	>140 °C
\bigcirc	Holding pressure, spec.	300 - 800 bar
	Back pressure, spec.	<50 bar
	Injection speed	Slow - Fast - Slow
	Screw speed	5 - 12 m/min