+135-3858-6433 (GuangDong)
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AKROMID®
T5 GF 50 8 black (6205)

PPA GF50

AKROMID® T5 GF 50 8 black (6205) is a 50% glass fibre reinforced polyphthalamide with very high rigidity and strength, as well as high temperature and chemical resistance. This aromatic PPA keeps mechanical performance even at elevated temperatures as well as moisture pic-up. The material fulfills the requirements according to ACS and NSF 61. It is suitable for applications that are in contact with cold and hot drinking water. This material corresponds to the European food guideline EU 10/2011 and to the American FDA 21 CFR and is suitable for parts of kitchen and household appliances.

Regulatory

Properties

Modulus	Strength	Impact
19.000 MPa	**270** MPa	**85** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**19000 MPa** **19000 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**270 MPa** **270 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**2,1 %** **2,1 %**
Flexural modulus ISO 178	2 mm/min | d.a.m. 2 mm/min | conditioned	**18500 MPa** **18500 MPa**
Flexural strength ISO 178	2 mm/min | d.a.m. 2 mm/min | conditioned	**410 MPa** **350 MPa**
Standard bending strength RP 3,5 ISO 178	2mm/min | d.a.m.	**2,5 MPa**

Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m. -30°C | conditioned	**85 kJ/m²** **85 kJ/m²** **75 kJ/m²** **75 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m. 23°C | conditioned	**13 kJ/m²** **13 kJ/m²**

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**280 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**325 °C**

Flammability

Flammability UL 94	1,6 mm Wall thickness	**HB Class**

General Properties

Density ISO 1183	23°C	**1,65 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**0,8 %**
Molding shrinkage ISO 294-4	flow transverse	**0,1 - 0,3 %** **0,4 - 0,6 %**

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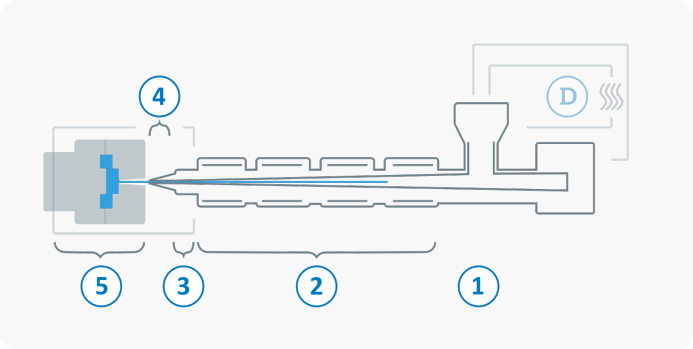
Processing

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	0 - 4 h
	Drying temperature (τ <= -30°C)	120 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 90 °C
2	Temperature Zone 1 - Zone 4	320 - 350 °C
3	Nozzle temperature	330 - 350 °C
4	Melt temperature	330 - 350 °C
5	Mold temperature	120 - 160 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

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Diagrams