+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

AKRO COMPOUNDS

Compound No.: **6458**

AKROMID®
T5 GF 40 8 black (6458)

PPA GF40

AKROMID® T5 GF 40 8 black (6458) is a 40% 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
15.000 MPa	**245** MPa	**80** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**15000 MPa** **15000 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**245 MPa** **230 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**2,4 %** **2,4 %**
Flexural modulus ISO 178	2 mm/min | d.a.m. 2 mm/min | conditioned	**15600 MPa** **15000 MPa**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned	**80 kJ/m²** **80 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m. 23°C | conditioned	**11 kJ/m²** **11 kJ/m²**

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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**
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	**+**

General Properties

Density ISO 1183	23°C	**1,5 g/cm³**
Molding shrinkage ISO 294-4	flow transverse	**0,1 - 0,3 %** **0,5 - 0,7 %**

Rheological Properties

Flowability AKRO	1 mm Thickness 2 mm Thickness	**120 mm** **300 mm**

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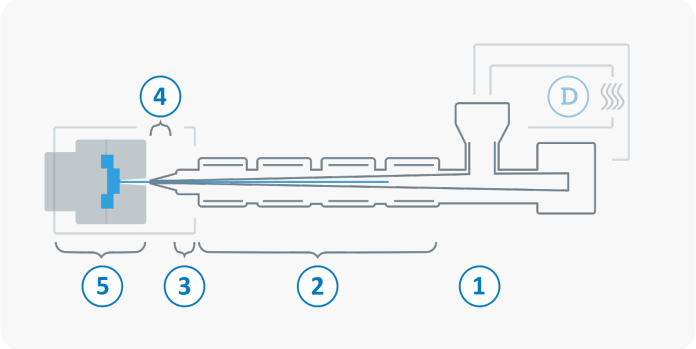
Processing

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