

AKROMID®

A28 GF 50 1 GIT black (5029)

PA66 GF50

AKROMID® A28 GF 50 1 GIT black (5029) is a 50% glass fibre reinforced, heat stabilised, easy flowing polyamide 6.6. It is characterised by very high stiffness and strength and shows an excellent surface. Furthermore, the material is designed for gas injection technology.

Features

heat stabilised 130 surface modified easy flow fluid injection (GIT/WIT/FIT)

Properties

Modulus

17.500 MPa

Strength

270 MPa

Impact

100 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

17500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

270 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

16800 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

380 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

3 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

100 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

20 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	260 °C
Temperature of deflection under load HDT/C ISO 75	8 MPa	225 °C
Melting temperature ISO 11357-3	DSC, 10K/min	260 °C
Coefficient of linear thermal expansion ISO 11359-1/2	23°C to 80°C parallel 23°C to 80°C transverse	0,15 10 ⁻⁴ /K 0,78 10 ⁻⁴ /K

Flammability

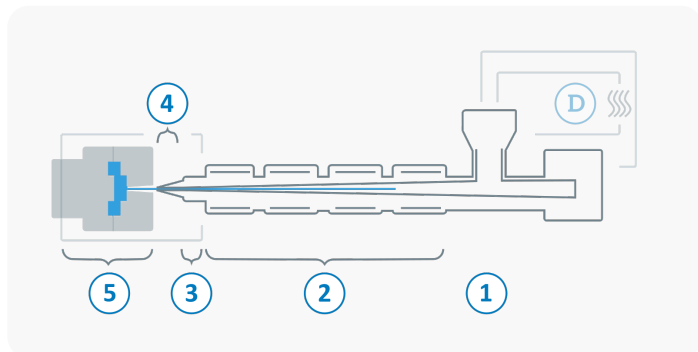
Flammability UL 94	1,6 mm Wall thickness	HB Class
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	1,57 g/cm ³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,1 - 1,3 %
Molding shrinkage ISO 294-4	flow transverse	0,1 - 0,3 % 0,5 - 0,7 %

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 ($\tau \leq -30^{\circ}\text{C}$)	80 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	260 - 300 °C
3	Nozzle temperature	270 - 310 °C
4	Melt temperature	280 - 300 °C
5	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min