

Compound No.: 71090

AKROMID® A3 GF 50 4 natural (71090)

PA66 GF50

AKROMID® A3 GF 50 4 natural (71090) is a 50% glass fiber reinforced, high heat stabilised, hydrolysis- and chemical resistant polyamide 6.6 with very high stiffness and strength. It is the official DDPD-free successor of formulation (7109). The material can be used for functional parts in the heating and cooling system. The material has a brownish color.

Features

hydrolysis / chemically stabilised

Properties

Modulus	Strength	Impact
18.000 MPa	260 MPa	110 kJ/m²

Mechanical Properties

Tensile modulus	1 mm/min d.a.m.	18000 MPa
ISO 527-2	1 mm/min conditioned	14000 MPa
Tensile stress at break	5 mm/min d.a.m.	260 MPa
ISO 527-2	5 mm/min conditioned	190 MPa
Tensile strain at break	5 mm/min d.a.m.	3,0 %
ISO 527-2	5 mm/min conditioned	4,0 %
Charpy impact strength	23°C d.a.m.	110 kJ/m²
ISO 179-1/1eU	23°C conditioned	115 kJ/m ²

Thermal Properties

Melting temperature	DSC. 10K/min	262 °C
ISO 11357-3	<i>55</i> C, 1010111111	202 C

Flammability



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Burning rate 5V UL 94	1,6 mm Wall thickness	HB Class
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

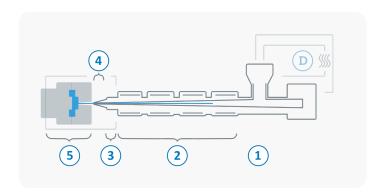
Density ISO 1183	23°C	1,57 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,3 - 1,5 %
Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,5 - 0,7 %





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 (τ <= -30°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
\ominus	Holding pressure, spec.	300 - 800 bar
\bigcirc	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min