

AKROMID® PRELIMINARY

NEXT 5.6 3 GF 30 FR black (8465)

PA56 GF30 FR(40)

AKROMID® NEXT 5.6 3 GF 30 FR black (8465) is a partially bio-based and flame retardant PA 5.6 and meets the requirement according to UL94 V0 @ 0,8 mm. The flame-retardant system is free of red phosphorus and halogens. PA 5.6 is a HMD-free (hexamethylenediamine) alternative to PA 6.6. With 30% glass fibre reinforcement, the material is suitable for components with high strength requirements for E&E and E-Mobility, such as busbar supports, switches, terminal strips and connector housings. This grade is laser markable.

Features

Bio-based heat stabilised 130 flame retardant E&E

Properties

Modulus

11.000 MPa

Strength

137 MPa

Impact

64 kJ/m²

Sustainability

Biobased carbon content

32 %

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

11000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

137 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,6 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

64 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

10 kJ/m²

Thermal Properties

Melting temperature	DSC, 10K/min	254 °C
ISO 11357-3		

Flammability

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

GWFI	0,8 mm Wall thickness	960 °C
IEC 60695-2-12	1,6 mm Wall thickness	960 °C

GWIT	0,8 mm Wall thickness	725 °C
IEC 60695-2-13	1,6 mm Wall thickness	700 °C

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

General Properties

Density	23°C	1,40 g/cm³
ISO 1183		

Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,7 - 0,9 %

Electrical Properties

Comparative tracking index	Test liquid A	600 V
IEC 60112		

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 - 4 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80 °C
	Processing moisture	0,02 - 0,08 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	260 - 290 °C
3	Nozzle temperature	260 - 300 °C
4	Melt temperature	270 - 290 °C
5	Mold temperature	60 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	30 - 100 bar
	Injection speed	medium
	Screw speed	5 - 10 m/min

Diagrams

