

AKROMID® PRELIMINARY

NEXT 5.6 3 GF 35 9 FR grey (8400)

PA56 GF35 FR(40)

AKROMID® NEXT 5.6 3 GF 35 9 FR grey (8400) is a partially bio-based, flame retardant PA 5.6 and meets the requirement according to UL94 V0 @ 1.6 mm. This grade is colored in grey, similar to RAL7035. 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 35% 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.

Features

Bio-based heat stabilised 130 flame retardant E&E

Properties

Modulus

12.300 MPa

Strength

150 MPa

Impact

60 kJ/m²

Sustainability

Biobased carbon content 34 %

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

12300 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

150 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,2 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

60 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

12 kJ/m²

Thermal Properties

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

Flammability

Flammability	1,6 mm Wall thickness	V-0 Class
UL 94	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	900 °C

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

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

General Properties

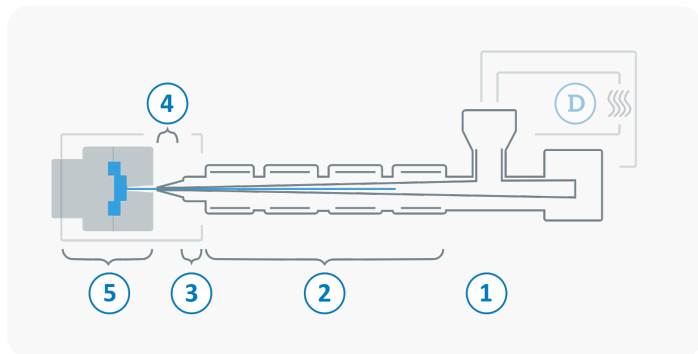
Density	23°C	1,46 g/cm³
ISO 1183		

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	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