

AKROLOY®

PA K17 FR black (5762)

PA66+X GF35 FR(40)

AKROLOY® PA K17 FR black (5762) is a 35% glass fibre reinforced, halogen-free flame retardant PA 66 high temperature-alloy with high stiffness and strength as well as reduced moisture absorption. The material is certified according to CS/FAR Part 25 §285.853a and listed at AIRBUS

Features

flame retardant

Properties

Modulus

12.500 MPa

Strength

160 MPa

Impact

60 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

12500 MPa

1 mm/min | conditioned

9200 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

160 MPa

5 mm/min | conditioned

115 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,5 %

5 mm/min | conditioned

3,0 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

60 kJ/m²

23°C | conditioned

60 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

12 kJ/m²

23°C | conditioned

12 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

250 °C

Melting temperature	DSC, 10K/min	260 °C
ISO 11357-3		

Flammability

Flammability	0,4 mm Wall thickness	V-0 Class
UL 94	0,8 mm Wall thickness	V-0 Class
	1,6 mm Wall thickness	V-0 Class
	3,2 mm Wall thickness	V-0 Class

GWFI	0,4 mm Wall thickness	960 °C
IEC 60695-2-12	0,8 mm Wall thickness	960 °C
	1,6 mm Wall thickness	960 °C
	3,2 mm Wall thickness	960 °C

GWIT	0,4 mm Wall thickness	800 °C
IEC 60695-2-13	0,8 mm Wall thickness	800 °C
	1,6 mm Wall thickness	775 °C
	3,2 mm Wall thickness	775 °C

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

General Properties

Density	23°C	1,5 g/cm³
ISO 1183		

Humidity absorption	70°C, 62% r.H.	1,3 - 1,5 %
ISO 1110		

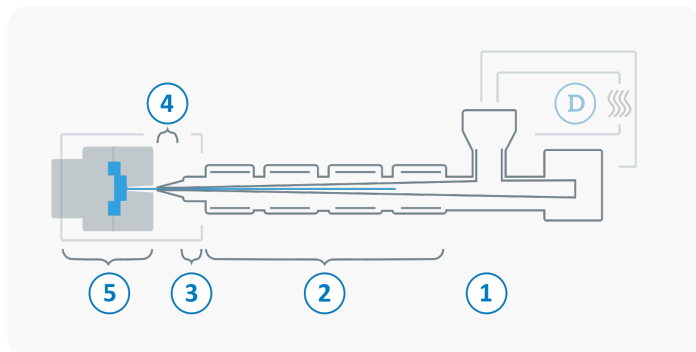
Molding shrinkage	flow	0,2 - 0,4 %
ISO 294-4	transverse	0,6 - 0,8 %

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	280 - 300 °C
3	Nozzle temperature	280 - 310 °C
4	Melt temperature	295 - 305 °C
5	Mold temperature	80 - 130 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	30 - 100 bar
	Injection speed	medium
	Screw speed	5 - 10 m/min