

AKROMID® PRELIMINARY

T9 GF 15 FR LA black (8197)

PPA GF15 FR(40)

AKROMID® T9 GF 15 FR LA black (8197) is a flame retardant, 15% glass fibre reinforced polyphthalamide. The product is based on PA9T and has a significantly lower moisture absorption compared to conventional PA6T grades. As a result, the glass transition area is much more constant and even in the conditioned state, the product impresses with its medium strength and stiffness. Due to its high temperature and media resistance, this material is suitable for technical components that come into contact with chemicals. The flame retardant system is free of red phosphorus and halogens. This type is laser-markable.

Features

flame retardant laser markable

Properties

Modulus

6.000 MPa

Strength

107 MPa

Impact

48 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

6000 MPa

1 mm/min | conditioned

6000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

107 MPa

5 mm/min | conditioned

101 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,2 %

5 mm/min | conditioned

2,8 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

48 kJ/m²

23°C | conditioned

40 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

6 kJ/m²

23°C | conditioned

6 kJ/m²

Thermal Properties

Melting temperature

ISO 11357-3

DSC, 10K/min

305 °C

Flammability

Flammability

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

IEC 60695-2-12

0,8 mm Wall thickness

960 °C

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,26 g/cm³

Molding shrinkage

ISO 294-4

flow

0.2 - 0.4 %

transverse

0.6 - 0.8 %

Electrical Properties

Volume resistivity

IEC 62631-3-1

d.a.m.

10¹⁴ Ω x cm

conditioned

10¹⁴ Ω x cm

Surface resistivity

IEC 62631-3-2

d.a.m.

10¹³ Ω

conditioned

10¹² Ω

Comparative tracking index

IEC 60112

Test liquid A

600 V

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 ($\tau \leq -30^{\circ}\text{C}$)	120 °C
	Processing moisture	<0,05 %
1	Feed section	60 - 90 °C
2	Temperature Zone 1 - Zone 4	305 - 325 °C
3	Nozzle temperature	310 - 340 °C
4	Melt temperature	310 - 325 °C
5	Mold temperature	>135 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min