

AKROMID®

B28 GF 35 FR EN black (7485)

PA6 GF35 FR(40)

AKROMID® B28 GF 35 FR EN black (7485) is an easy flowing PA6 with 35% glass-fibers and flame retardant free of halogens and red phosphorous. The product contains an organic stabilization package and is optimized for use in electronic and electric applications.

Features

flame retardant 3D printing / additive manufacturing

Properties

Modulus

12.600 MPa

Strength

157 MPa

Impact

66 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

12600 MPa

1 mm/min | conditioned

8300 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

157 MPa

5 mm/min | conditioned

108 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,6 %

5 mm/min | conditioned

4,0 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

11800 MPa

2 mm/min | conditioned

9000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

238 MPa

2 mm/min | conditioned

179 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

2,8 %

2 mm/min | conditioned

3,6 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

66 kJ/m²

Charpy notched impact strength	23°C d.a.m.	11 kJ/m²
ISO 179-1/1eA	23°C conditioned	14 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	215 °C
ISO 75		
Temperature of deflection under load HDT/B	0,45 MPa	220 °C
ISO 75		
Temperature of deflection under load HDT/C	8 MPa	150 °C
ISO 75		
Melting temperature	DSC, 10K/min	222 °C
ISO 11357-3		
Coefficient of linear thermal expansion	23°C to 80°C parallel	0,44 10⁻⁴/K
ISO 11359-1/2	23°C to 80°C transverse	0,96 10⁻⁴/K

Flammability

Flammability	3,2 mm Wall thickness	V-0 Class
UL 94		
GWFI	0,8 mm Wall thickness	960 °C
IEC 60695-2-12	1,6 mm Wall thickness	800 °C
	3,2 mm Wall thickness	960 °C
GWIT	0,8 mm Wall thickness	775 °C
IEC 60695-2-13	1,6 mm Wall thickness	750 °C
	3,2 mm Wall thickness	800 °C

General Properties

Density	23°C	1,46 g/cm³
ISO 1183		
Humidity absorption	70°C, 62% r.H.	1,6 - 1,8 %
ISO 1110		
Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,5 - 0,7 %

Electrical Properties

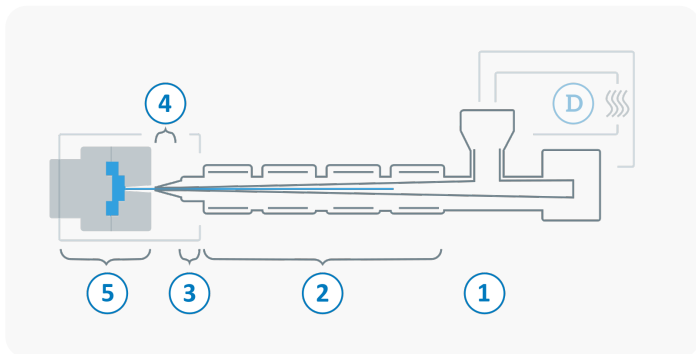
Volume resistivity	d.a.m.	$10^{13} \Omega \times \text{cm}$
IEC 62631-3-1	conditioned	$10^{12} \Omega \times \text{cm}$
Comparative tracking index	Test liquid A	600 V
IEC 60112		

Rheological Properties

Flowability	2 mm Thickness	380 mm
AKRO		

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	220 - 280 °C
3	Nozzle temperature	240 - 280 °C
4	Melt temperature	240 - 280 °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

