

AKROMID®

D3 CGM 15/20 S1 black (6284)

PA612 (CF15+GF20)

AKROMID® D3 CGM 15/20 S1 black (6284) is a 15% carbon fibre reinforced, 20% glass fibre reinforced, cold impact strength polyamide 6.12 with high stiffness and strength and electrical conductivity. Due to its good chemical resistance, the compound is suitable for media-carrying connectors and can replace PA12 in certain applications.

Properties

Modulus

13.500 MPa

Strength

145 MPa

Impact

80 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

13500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

145 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

4 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

13000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

235 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

80 kJ/m²

-30°C | d.a.m.

80 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

25 kJ/m²

Thermal Properties

Melting temperature

ISO 11357-3

DSC, 10K/min

215 °C

Flammability

Flammability

UL 94

0,8 mm Wall thickness

HB Class

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,23 g/cm³

Molding shrinkage

ISO 294-4

flow

0,3 - 0,5 %

transverse

0,8 - 1,0 %

Electrical Properties

Volume resistivity

IEC 62631-3-1

d.a.m.

< 10⁶ Ω x cm

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	230 - 290 °C
3	Nozzle temperature	240 - 300 °C
4	Melt temperature	270 - 290 °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