

AKROMID®

B3 GF 20 black (2491)

PA6 GF20

AKROMID® B3 GF 20 black (2491) is a 20% glass fibre reinforced polyamide 6 with medium stiffness and strength

Properties

Modulus

6.800 MPa

Strength

150 MPa

Impact

73 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

6800 MPa

1 mm/min | conditioned

4200 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

150 MPa

5 mm/min | conditioned

85 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,5 %

5 mm/min | conditioned

7,5 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

6100 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

230 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

73 kJ/m²

23°C | conditioned

88 kJ/m²

-30°C | d.a.m.

65 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

9 kJ/m²

23°C | conditioned

14 kJ/m²

-30°C | d.a.m.

8 kJ/m²

Ball indentation hardness

ISO 2039-1

961N/30s | d.a.m.

200 MPa

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	210 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	220 °C
Melting temperature ISO 11357-3	DSC, 10K/min	220 °C
Temperature index for 50% loss of tensile strength IEC 60216	5.000 h 20.000 h	160 - 175 °C 130 - 150 °C

Flammability

Flammability UL 94	1,6 mm Wall thickness	HB Class
GWFI IEC 60695-2-12	1,6 mm Wall thickness	650 °C
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	1,27 g/cm ³
Humidity absorption ISO 1110	70°C, 62% r.H.	2,4 - 2,7 %
Water absorption ISO 62	23°C, saturated	7,4 - 7,7 %
Molding shrinkage ISO 294-4	flow transverse	0,2 % 0,8 %

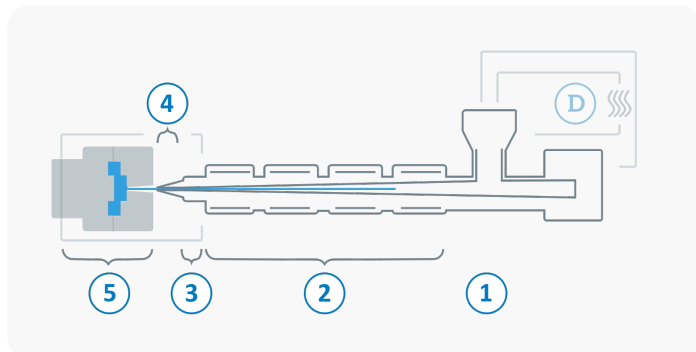
Electrical Properties

Volume resistivity IEC 62631-3-1	d.a.m. conditioned	10 ¹³ Ω x cm 10 ¹⁰ Ω x cm
--	-----------------------	--

Surface resistivity	d.a.m.	10¹² Ω
IEC 62631-3-2	conditioned	10¹⁰ Ω
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	240 - 290 °C
3	Nozzle temperature	260 - 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