

AKROMID®

D3 GF 30 1 LT black (5391)

PA612 GF30

AKROMID® D3 GF 30 1 LT black (5391) is a 30% glass fibre reinforced, heat stabilised polyamide 6.12 with lower moisture absorption. Due to its good chemical resistance, the compound is suitable for media-carrying connectors. The compound can be welded via laser welding and the corresponding laserabsorbing D3 GF 30 1 black (5392).

Features

heat stabilised 130 laser transparent reduced moisture

Properties

Modulus

9.200 MPa

Strength

170 MPa

Impact

85 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

9200 MPa

1 mm/min | conditioned

6700 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

170 MPa

5 mm/min | conditioned

120 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,5 %

5 mm/min | conditioned

4,5 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

8500 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

260 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

85 kJ/m²

23°C | conditioned

87 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

15 kJ/m²

23°C | conditioned

20 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	200 °C
Melting temperature ISO 11357-3	DSC, 10K/min	215 °C

Flammability

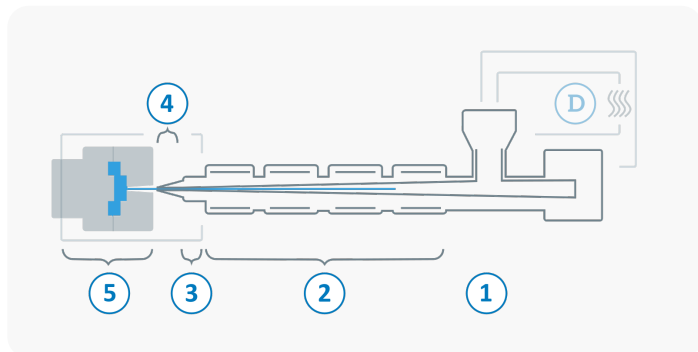
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+
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General Properties

Density ISO 1183	23°C	1,31 g/cm ³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,41 %
Molding shrinkage ISO 294-4	flow	0,3 - 0,5 %
	transverse	0,7 - 0,9 %

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

Diagrams

