+135-3858-6433 (GuangDong)
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AKRO COMPOUNDS

Compound No.: **5504**

AKROLOY®
PA LGF 50 natural (5504)

PA66+PA6I/6T LGF50

AKROLOY® PA LGF 50 natural (5504) is a 50% long glass fibre reinforced, semi-aromatic polyamide blend with extra-ordinary high stiffness and strength even at high temperature and very high impact and notched impact strength at elevated and low temperature even in conditioned state. PA LGF 50 natural (5504) distinguish due to isotropic mechanical properties, low shrinkage, higher heat deflection temperature and very good fatigue performance. The material has very good surface properties.

Features

low warpage | reduced moisture

Properties

Modulus	Strength	Impact
19.000 MPa	**290** MPa	**100** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**19000 MPa** **18500 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**290 MPa** **265 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**2,3 %** **2,3 %**
Flexural modulus ISO 178	2 mm/min | d.a.m.	**17500 MPa**
Flexural strength ISO 178	2 mm/min | d.a.m.	**440 MPa**
Flexural strain at break ISO 178	2 mm/min | d.a.m.	**2,8 %**

Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**100 kJ/m²** **105 kJ/m²** **85 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**42 kJ/m²** **42 kJ/m²** **45 kJ/m²**

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**230 °C**
Temperature of deflection under load HDT/C ISO 75	8 MPa	**200 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**255 °C**

Flammability

Flammability UL 94	1,6 mm Wall thickness	**HB Class**

General Properties

Density ISO 1183	23°C	**1,59 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**1,2 - 1,4 %**
Molding shrinkage ISO 294-4	flow transverse	**0,3 - 0,5 %** **0,6 - 0,8 %**

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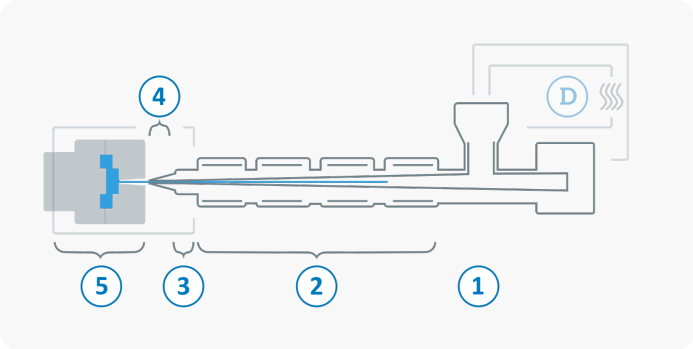
Processing

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 (τ <= -30°C)	80 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	270 - 300 °C
3	Nozzle temperature	280 - 300 °C
4	Melt temperature	280 - 300 °C
5	Mold temperature	80 - 130 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	10 - 30 bar
	Injection speed	slow to medium
	Screw speed	5 - 15 m/min