

AKROLOY®

PARA GF 60 HU black (8519)

PARA GF60

AKROLOY® PARA GF 60 HU black (8519) is a 60% glass fibre reinforced polyarylamid with very high stiffness and strength, even in conditioned state owing to its lower moisture uptake. Furthermore, the material shows very good flowability and surface properties. It is perfectly suitable for parts where dimensional stability is required. Besides, it can be used as an alternative for aluminium and zinc diecast alloys. The material is listed at UL in all colors.

Features

reduced moisture easy flow metal substitution

Regulatory



Properties

Modulus

24.000 MPa

Strength

310 MPa

Impact

80 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

24000 MPa

1 mm/min | conditioned

24000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

310 MPa

5 mm/min | conditioned

280 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,0 %

5 mm/min | conditioned

2,0 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

23500 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

400 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

80 kJ/m²

23°C | conditioned

85 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/C	8 MPa	205 °C
ISO 75		

Melting temperature	DSC, 10K/min	238 °C
ISO 11357-3		

Flammability

Flammability	0,8 mm Wall thickness	HB Class
UL 94	1,6 mm Wall thickness	HB Class
	3,2 mm Wall thickness	HB Class

HWI	0,8 mm Wall thickness	4 PLC
UL 746A	1,6 mm Wall thickness	2 PLC
	3,2 mm Wall thickness	2 PLC

HAI	0,8 mm Wall thickness	0 PLC
UL 746A	1,6 mm Wall thickness	0 PLC
	3,2 mm Wall thickness	0 PLC

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

General Properties

Density	23°C	1,76 g/cm³
ISO 1183		

Humidity absorption	70°C, 62% r.H.	0,7 %
ISO 1110		

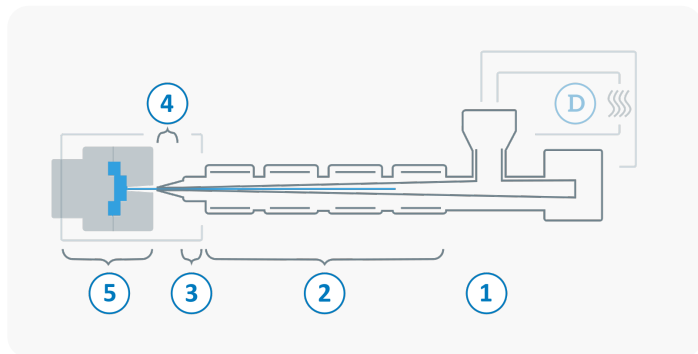
Molding shrinkage	flow	0,1 - 0,2 %
ISO 294-4	transverse	0,2 - 0,4 %

Electrical Properties

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	4 - 12 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80 - 90 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	250 - 300 °C
3	Nozzle temperature	270 - 300 °C
4	Melt temperature	270 - 300 °C
5	Mold temperature	120 - 160 °C
→	Holding pressure, spec.	300 - 1500 bar
←	Back pressure, spec.	50 -150 bar
	Injection speed	high
	Screw speed	8 - 10 m/min