

AKROLOY®

PARA GF 35 FR grey (8200)

PARA GF35 FR(40)

AKROLOY® PARA GF 35 FR grey (8200) is a flame retardant, 35% glass-fiber reinforced Polyarylamide with highest modulus and strength. The material is based on a flame retardant system that is free of red phosphorus and halogens and is colored in grey similar to RAL 7035. Due to its very good flowability, an improved surface quality is achieved. This grade is also suitable for applications in electrical industries, which need low creep even in conditioned state.

Features

electrically neutral flame retardant surface modified reduced moisture easy flow E&E

Properties

Modulus

14.500 MPa

Strength

190 MPa

Impact

50 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

14500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

190 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,0 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

50 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

13 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

230 °C

Melting temperature	DSC, 10K/min	235 °C
ISO 11357-3		

Flammability

Flammability	0,4 mm Wall thickness	V-0 Class
UL 94	0,8 mm Wall thickness	V-0 Class
	1,6 mm Wall thickness	V-0 Class
	3,2 mm Wall thickness	V-0 Class

GWFI	0,4 mm Wall thickness	960 °C
IEC 60695-2-12	0,8 mm Wall thickness	960 °C
	1,6 mm Wall thickness	960 °C
	3,2 mm Wall thickness	960 °C

GWIT	0,4 mm Wall thickness	825 °C
IEC 60695-2-13	0,8 mm Wall thickness	800 °C
	1,6 mm Wall thickness	800 °C
	3,2 mm Wall thickness	825 °C

General Properties

Density	23°C	1,48 g/cm³
ISO 1183		

Humidity absorption	70°C, 62% r.H.	0,8 - 1,0 %
ISO 1110		

Molding shrinkage	flow	0,2 - 0,4 %
ISO 294-4	transverse	0,4 - 0,6 %

Electrical Properties

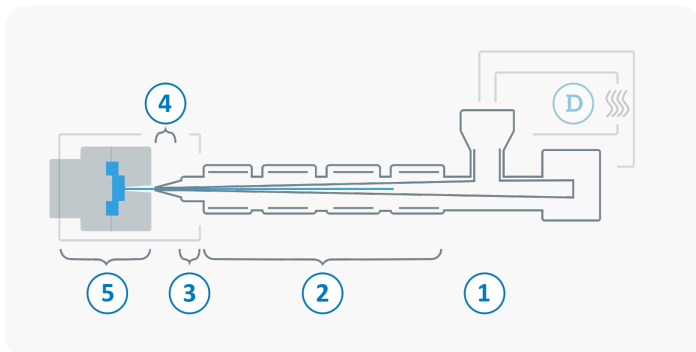
Volume resistivity	d.a.m.	10¹⁵ Ω x cm
IEC 62631-3-1		

Comparative tracking index	Test liquid A	600 V
IEC 60112		

Dielectric strength	1 mm	36 kV/mm
IEC 60243		

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 °C
	Processing moisture	0,02 - 0,08 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	240 - 270 °C
3	Nozzle temperature	240-280 °C
4	Melt temperature	240 - 280 °C
5	Mold temperature	120 - 160 °C
→	Holding pressure, spec.	300-800 bar
←	Back pressure, spec.	30-100 bar
	Injection speed	medium to high
	Screw speed	5 - 10 m/min