

AKROMID®

S3 GF 30 4 natural (3552)

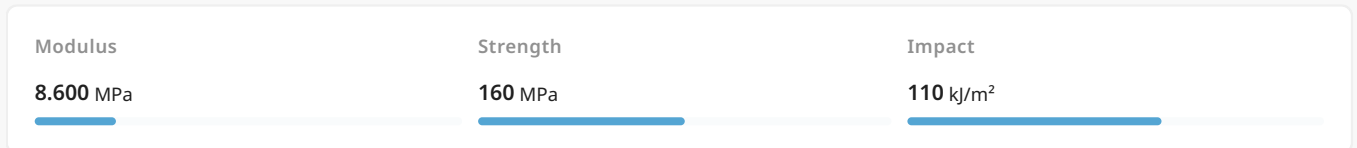
PA6.10

AKROMID® S3 GF 30 4 natural (3552) is a 30% glass fibre reinforced and hydrolysis stabilised polyamide 6.10 with high stiffness and strength as well as lower moisture absorption and very high chemical resistance. The material has a brownish color.

Features

hydrolysis / chemically stabilised reduced moisture

Properties



Sustainability

Biobased carbon content 58 %

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min d.a.m.	8600 MPa
	1 mm/min conditioned	6200 MPa
Tensile stress at break ISO 527-2	5 mm/min d.a.m.	160 MPa
	5 mm/min conditioned	110 MPa
Tensile strain at break ISO 527-2	5 mm/min d.a.m.	5,5 %
	5 mm/min conditioned	6,5 %
Flexural modulus ISO 178	2 mm/min d.a.m.	7700 MPa
Flexural strength ISO 178	2 mm/min d.a.m.	230 MPa
Flexural strain at break ISO 178	2 mm/min d.a.m.	5,5 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

110 kJ/m²

23°C | conditioned

90 kJ/m²

-30°C | d.a.m.

110 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

16 kJ/m²

-30°C | d.a.m.

12 kJ/m²

Ball indentation hardness

ISO 2039-1

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

195 MPa

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

200 °C

Temperature of deflection under load HDT/C

ISO 75

8 MPa

140 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

220 °C

Flammability

Flammability

UL 94

0,8 mm Wall thickness

HB Class

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,31 g/cm³

Humidity absorption

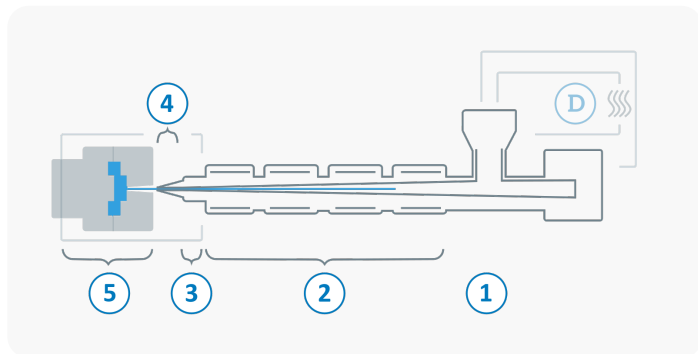
ISO 1110

70°C, 62% r.H.

1,2 %

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	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