

PA6.6 – Polyamide 6.6 PA66+PA6I/6T-I

AKROLOY® PA GF 35 S1 black (7121)

Tensile modulus

11000 MPa

1 mm/min
ISO 527-2

Stress at break

195 MPa

5 mm/min
ISO 527-2

Charpy impact strength

95 kJ/m²

23°C
ISO 179-1/1eU

AKROLOY® PA GF 35 S1 black (7121) is a 35% glass fibre reinforced, cold impact strength, semi-aromatic polyamide blend with high stiffness and strength, even in conditioned state.

Typical applications

Components with high dimensional stability and high strength and stiffness, barely effected by moisture absorption.



Mechanical Properties

Tensile modulus (1 mm/min | ISO 527-2)

d.a.m.	11000 MPa
conditioned	10500 MPa

Stress at break (5 mm/min | ISO 527-2)

d.a.m.	195 MPa
conditioned	160 MPa

Strain at break (5 mm/min | ISO 527-2)

d.a.m.	2,8 %
conditioned	3 %

Charpy impact strength (23°C | ISO 179-1/1eU)

d.a.m.	95 kJ/m ²
conditioned	95 kJ/m ²

Charpy notched impact strength (23°C | ISO 179-1/1eA)

d.a.m.	15 kJ/m ²
conditioned	15 kJ/m ²



Thermal Properties

Temperature of deflection under load HDT/A (1,8 MPa | ISO 75) 240 °C

Melting temperature (DSC, 10K/min | DIN EN 11357-1) 262 °C



Flammability

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



General properties

Density (23°C | ISO 1183) 1,4 g/cm³

Molding shrinkage (flow | ISO 294-4) 0,1-0,3 %

Molding shrinkage (transverse | ISO 294-4) 0,45-0,65 %

Disclaimer:

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AKROLOY® PA GF 35 S1 black (7121)**Processing information**

The listed values are recommendations. Higher values should be used for higher glass loadings. We recommend only dehumidifying or vacuum dryers. Extensive drying can cause filling problems and surface defects.

Drying time	0 - 4 h
Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80°C
Processing moisture	0,02 - 0,1%
Feed section	60 - 80°C
Temperature zone 1 - Zone 4	260 - 300°C
Nozzle temperature	270 - 300°C
Melt temperature	280 - 300°C
Mold temperature	90 - 130°C
Holding pressure, spec.	300 - 800 bar
Back pressure, spec.	50 - 150 bar
Injection speed	medium to high
Screw speed	8 - 15 m/min

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