# AKROMID ®

## B3 GF 30 S1 LA black (4446)

PA6-I GF30

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## Datasheet

**Description:**

AKROMID® B3 GF 30 S1 black (4446) is a 30% glass fibre reinforced, cold impact strength, laser markable polyamide 6 with high stiffness and strength

**Applications**

Housings and covers for the automotive industry and power tools

| Typical values | Test specification | Method | Unit | Value d.a.m. |
|---|---|---|---|---|
| **Mechanical Properties** | | | | |
| Tensile modulus | 1 mm/min | ISO 527-2 | MPa | 8400 |
| Stress at break | 5 mm/min | ISO 527-2 | MPa | 150 |
| Strain at break | 5 mm/min | ISO 527-2 | % | 5 |
| Flexural modulus | 2 mm/min | ISO 178 | MPa | 8000 |
| Flexural strength | 2 mm/min | ISO 178 | MPa | 250 |
| Flexural strain at break | 2 mm/min | ISO 178 | % | 4,8 |
| Charpy impact strength | 23°C | ISO 179-1/1eU | kJ/m² | 105 |
| Charpy impact strength | -30°C | ISO 179-1/1eU | kJ/m² | 110 |
| Charpy notched impact strength | 23°C | ISO 179-1/1eA | kJ/m² | 23 |
| Charpy notched impact strength | -30°C | ISO 179-1/1eA | kJ/m² | 15 |
| **Thermal Properties** | | | | |
| Melting temperature | DSC, 10K/min | DIN EN 11357-1 | °C | 222 |
| Temp. of deflection under load HDT/A | 1,8 MPa | ISO 75 | °C | 205 |
| Temp. of deflection under load HDT/C | 8 MPa | ISO 75 | °C | 145 |
| **Flammability** | | | | |
| Wall thickness | | | mm | 0,4 / 0,8 / 1,6 / 2,0 / 3,2 |
| Flammability | | UL 94 | class | HB |
| Burning rate (< 100 mm/min) | > 1 mm thickness | FMVSS 302 | | + |
| **General Properties** | | | | |
| Content reinforcement/Content Filler | | ISO 1172 | % | 30 |
| **Processing** | | | | |
| Molding shrinkage | flow | ISO 294-4 | % | 0,1 - 0,3 |
| Molding shrinkage | transverse | ISO 294-4 | % | 0,5 - 0,7 |

AKRO-PLASTIC GmbH
Commercial registered office: Niederzissen
Commercial Register: Koblenz HRB 12227
Managing Director: Andreas Stuber, Dirk Steinbrück
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last update: 15.09.2017

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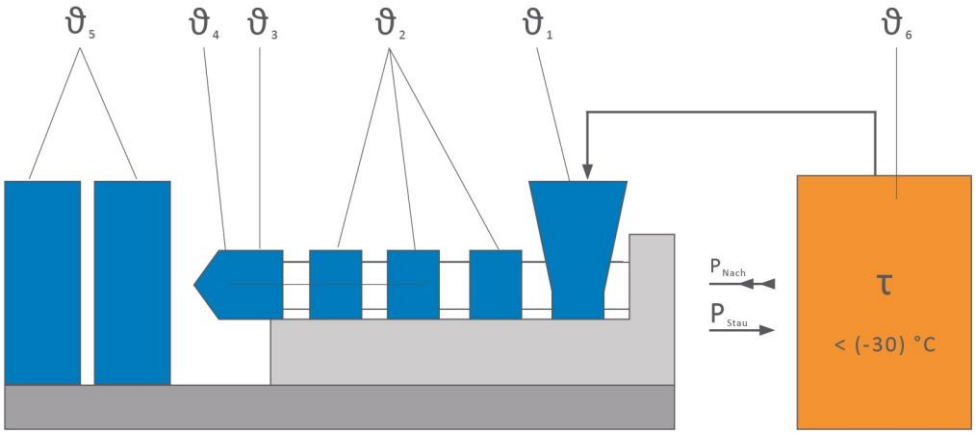
**Continuation**

## Processing recommendations




| | | | |
|---|---|---|---|
| $\vartheta_6$ | Drying time | h | 0 - 4 |
| $\vartheta_6$ | Drying temperature | °C | 80 |
| | Processing moisture | % | 0,02 - 0,1 |
| $\vartheta_1$ | Feed section | °C | 60 - 80 |
| $\vartheta_2$ | Section 1 - Section 4 | °C | 240 - 290 |
| $\vartheta_3$ | Nozzle | °C | 260 - 300 |
| $\vartheta_4$ | Melt | °C | 270 - 290 |
| $\vartheta_5$ | Mould | °C | 80 - 100 |
| $P_{Nach}$ | Holding pressure, spec. | bar | 300 - 800 |
| $P_{Stau}$ | Back pressure, spez. | bar | 50 - 150 |
| | Injection speed | | medium to high |
| | Screw speed | m/min | 8 - 15 |

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

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