

Datasheet

Description:

AKROMID® A3 GF 25 3 black (3094) is a 25% glass fibre reinforced, nucleated polyamide 6.6 with high stiffness and strength

Applications

Mainly components in mechanical engineering and in the automotive industry

| Typical values | Test specification | Method | Unit | Value d.a.m. |
|----------------|--------------------|--------|------|-----------------|
|----------------|--------------------|--------|------|-----------------|

Mechanical Properties

| | | | | |
|--------------------------------|----------|---------------|-------------------|------|
| Tensile modulus | 1 mm/min | ISO 527-2 | MPa | 8500 |
| Stress at break | 5 mm/min | ISO 527-2 | MPa | 160 |
| Strain at break | 5 mm/min | ISO 527-2 | % | 3 |
| Flexural modulus | 2 mm/min | ISO 178 | MPa | 6600 |
| Flexural strength | 2 mm/min | ISO 178 | MPa | 230 |
| Flexural strain at break | 2 mm/min | ISO 178 | % | 3,6 |
| Charpy impact strength | 23°C | ISO 179-1/1eU | kJ/m ² | 50 |
| Charpy impact strength | -30°C | ISO 179-1/1eU | kJ/m ² | 45 |
| Charpy notched impact strength | 23°C | ISO 179-1/1eA | kJ/m ² | 6 |
| Izod notched impact strength | 23°C | ISO 180/1A | kJ/m ² | 6 |

Thermal Properties

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

Flammability

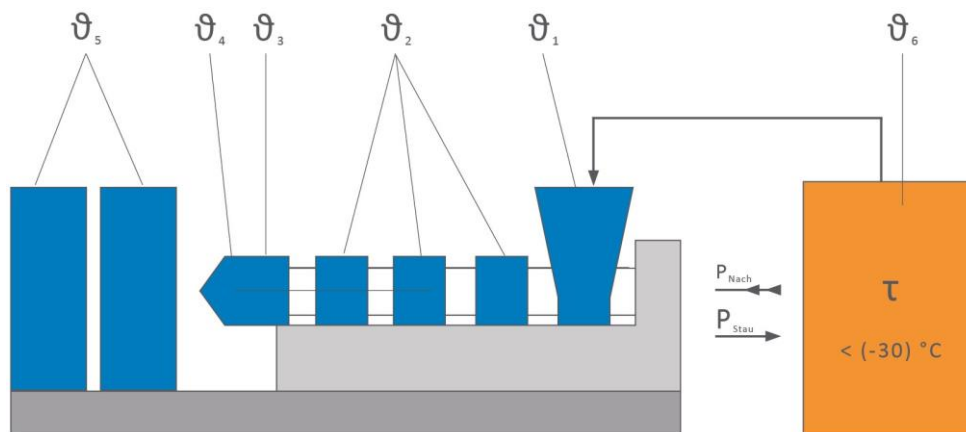
| | | | | | | | | |
|-----------------------------|------------------|-----------|-------|-----|-----|-----|-----|-----|
| Wall thickness | | | mm | 0,4 | 0,8 | 1,6 | 2,0 | 3,2 |
| Flammability | | UL 94 | class | | | HB | | |
| Burning rate (< 100 mm/min) | > 1 mm thickness | FMVSS 302 | | | | + | | |

General Properties

| | | | | |
|--------------------------------------|------|----------|-------------------|------|
| Density | 23°C | ISO 1183 | g/cm ³ | 1,32 |
| Content reinforcement/Content Filler | | ISO 1172 | % | 25 |

Continuation

Processing recommendations



| | | | |
|---------------|-------------------------|-------|----------------|
| ϑ_6 | Drying time | h | 0 - 4 |
| ϑ_6 | Drying temperature | °C | 80 |
| | Processing moisture | % | 0,02 - 0,1 |
| ϑ_1 | Feed section | °C | 60 - 80 |
| ϑ_2 | Section 1 - Section 4 | °C | 260 - 300 |
| ϑ_3 | Nozzle | °C | 270 - 310 |
| ϑ_4 | Melt | °C | 280 - 300 |
| ϑ_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.