

# AKROMID®

## B3 GF 60 4 RM-M natural (4645)

PA6 + X GF60

AKROMID® B3 GF 60 4 RM-M natural (4645) is a 60% glass fiber reinforced, hydrolysis- and chemical stabilised polyamide 6 with low humidity absorption, very good surface finish and light inherent color.

### Features

hydrolysis / chemically stabilised    reduced moisture

### Properties

#### Modulus

21.500 MPa

#### Strength

235 MPa

#### Impact

65 kJ/m<sup>2</sup>

## Mechanical Properties

### Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

21500 MPa

1 mm/min | conditioned

17000 MPa

### Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

235 MPa

5 mm/min | conditioned

175 MPa

### Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2 %

5 mm/min | conditioned

2,7 %

### Flexural modulus

ISO 178

2 mm/min | d.a.m.

20500 MPa

### Flexural strength

ISO 178

2 mm/min | d.a.m.

350 MPa

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

65 kJ/m<sup>2</sup>

23°C | conditioned

65 kJ/m<sup>2</sup>

## Thermal Properties

### Melting temperature

ISO 11357-3

DSC, 10K/min

225 °C

## Flammability

|                                                   |                       |                 |
|---------------------------------------------------|-----------------------|-----------------|
| <b>Flammability</b><br>UL 94                      | 0,8 mm Wall thickness | <b>HB Class</b> |
| <b>Burning rate (&lt;100 mm/min)</b><br>FMVSS 302 | > 1 mm Thickness      | <b>+</b>        |

## General Properties

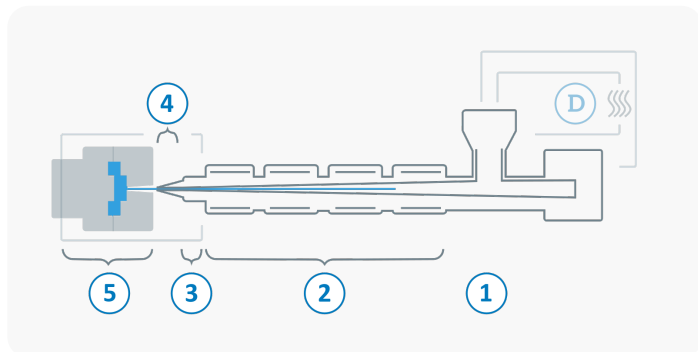
|                                        |                |                    |
|----------------------------------------|----------------|--------------------|
| <b>Humidity absorption</b><br>ISO 1110 | 70°C, 62% r.H. | <b>1,05 %</b>      |
| <b>Molding shrinkage</b><br>ISO 294-4  | flow           | <b>0,1 - 0,3 %</b> |
|                                        | transverse     | <b>0,3 - 0,5 %</b> |

## Electrical Properties

|                                                |               |              |
|------------------------------------------------|---------------|--------------|
| <b>Comparative tracking index</b><br>IEC 60112 | Test liquid A | <b>600 V</b> |
|------------------------------------------------|---------------|--------------|

## 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.



|          |                                                        |                |
|----------|--------------------------------------------------------|----------------|
| <b>D</b> | Drying time                                            | 0 - 4 h        |
|          | Drying temperature ( $\tau \leq -30^{\circ}\text{C}$ ) | 80 °C          |
|          | Processing moisture                                    | 0,02 - 0,1 %   |
| <b>1</b> | Feed section                                           | 60 - 80 °C     |
| <b>2</b> | Temperature Zone 1 - Zone 4                            | 220 - 280 °C   |
| <b>3</b> | Nozzle temperature                                     | 240 - 290 °C   |
| <b>4</b> | Melt temperature                                       | 240 - 280 °C   |
| <b>5</b> | Mold temperature                                       | 80 - 100 °C    |
| <b>→</b> | Holding pressure, spec.                                | 300 - 800 bar  |
| <b>←</b> | Back pressure, spec.                                   | 50 - 150 bar   |
|          | Injection speed                                        | medium to high |
|          | Screw speed                                            | 8 - 15 m/min   |

## Diagrams

