

# AKROMID®

## B28 GM 15/15 1 FR black (8750)

PA6 (GF15+GB15) FR(40)

AKROMID® B28 GM 15/15 1 FR black (8750) is an UL listed flame retardant PA6, reinforced with 15% glass fibres and 15% glass beads. The flame retardant system is free of halogens, red phosphorus, PFAS zinc borate and melamine. Due to its good flowability, it is characterised by easy processability as well as good surface properties. The product is suitable for enclosure applications in the E&E industry due to its low warpage, high stiffness and strength. This grade is excellent for laser marking.

### Features

flame retardant   laser markable   surface modified  
recycled content   low warpage   easy flow   E&E

### Regulatory



### Properties

#### Modulus

8.400 MPa

#### Strength

105 MPa

#### Impact

45 kJ/m<sup>2</sup>

## Sustainability

Recycled content 15 %

## Mechanical Properties

### Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

8400 MPa

1 mm/min | conditioned

5200 MPa

### Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

105 MPa

5 mm/min | conditioned

65 MPa

### Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,7 %

5 mm/min | conditioned

4,5 %

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

45 kJ/m<sup>2</sup>

23°C | conditioned

40 kJ/m<sup>2</sup>

-30°C | d.a.m.

40 kJ/m<sup>2</sup>

-30°C | conditioned

35 kJ/m<sup>2</sup>

### Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

7 kJ/m<sup>2</sup>

## Thermal Properties

### Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

200 °C

### Temperature of deflection under load HDT/B

ISO 75

0,45 MPa

217 °C

### Temperature of deflection under load HDT/C

ISO 75

8 MPa

102 °C

### Melting temperature

ISO 11357-3

DSC, 10K/min

220 °C

## Flammability

### Flammability

UL 94

**UL** 0,8 mm Wall thickness

V-0 Class

**UL** 1,6 mm Wall thickness

V-0 Class

**UL** 3,2 mm Wall thickness

V-0 Class

### GWFI

IEC 60695-2-12

0,8 mm Wall thickness

960 °C

1,6 mm Wall thickness

960 °C

3,2 mm Wall thickness

960 °C

### GWIT

IEC 60695-2-13

1,6 mm Wall thickness

775 °C

### Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

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## General Properties

### Density

ISO 1183

23°C

1,44 g/cm<sup>3</sup>

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**Humidity absorption**

ISO 1110

70°C, 62% r.H.

**1,4 - 1,6 %**

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**Molding shrinkage**

ISO 294-4

flow

**0,7 - 0,9 %**

transverse

**0,8 - 1,0 %**

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## Electrical Properties

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**Comparative tracking index**

IEC 60112

Test liquid A

**600 V**

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## 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                                            | 2 - 4 h       |
|          | Drying temperature ( $\tau \leq -30^{\circ}\text{C}$ ) | 80 °C         |
|          | Processing moisture                                    | 0,02 - 0,08 % |
| <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 - 280 °C  |
| <b>4</b> | Melt temperature                                       | 240 - 280 °C  |
| <b>5</b> | Mold temperature                                       | 60 - 100 °C   |
| <b>→</b> | Holding pressure, spec.                                | 300 - 800 bar |
| <b>←</b> | Back pressure, spec.                                   | 30 - 100 bar  |
|          | Injection speed                                        | medium        |
|          | Screw speed                                            | 5 - 10 m/min  |