

Compound No.: 6409

# AKROMID® B3 9 natural (6409)

PA6

AKROMID® B3 9 natural (6409) is an unreinforced polyamide 6 with good flowability and very good demoulding properties. It is suitable for applications in the furniture industry, the sport and leisure as well as the automotive industry. The material has a light inherent color.

#### **Features**

Sports & leisure

#### **Properties**

| Modulus          | Strength | Impact |
|------------------|----------|--------|
| <b>3.300</b> MPa | 85 MPa   | Na     |

#### **Mechanical Properties**

| Tensile modulus<br>ISO 527-2      | 1 mm/min   d.a.m.  | 3300 MPa |
|-----------------------------------|--------------------|----------|
| Tensile stress at yield ISO 527-2 | 50 mm/min   d.a.m. | 85 MPa   |
| Tensile strain at yield ISO 527-2 | 50 mm/min   d.a.m. | 4 %      |
| Tensile strain at break ISO 527-2 | 50 mm/min   d.a.m. | 17 %     |

### **Thermal Properties**

| Temperature of deflection under load HDT/A | 1,8 MPa      | 60 °C  |
|--|--------------|--------|
| Temperature of deflection under load HDT/B | 0,45 MPa     | 180 °C |
| Melting temperature ISO 11357-3            | DSC, 10K/min | 220 °C |



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# **Flammability**

| Burning rate (<100 mm/min) FMVSS 302 | > 1 mm Thickness | + |
|--------------------------------------|------------------|---|
| 111133352                            |                  |   |

# **General Properties**

| Density ISO 1183  | 23°C       | 1,13 g/cm³  |
|-------------------|------------|-------------|
| Molding shrinkage | flow       | 1,0 - 1,2 % |
| ISO 294-4         | transverse | 1,1 - 1,3 % |

## **Electrical Properties**

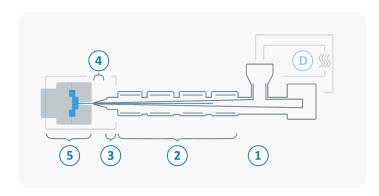
| Volume resistivity IEC 62631-3-1  | d.a.m. | 10 <sup>13</sup> Ω x cm |
|-----------------------------------|--------|-------------------------|
| Surface resistivity IEC 62631-3-2 | d.a.m. | $10^{12}\Omega$         |





#### **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.



| D          | Drying time                     | 0 - 4 h        |
|------------|---------------------------------|----------------|
|            | Drying temperature (τ <= -30°C) | 80 °C          |
|            | Processing moisture             | 0,02 - 0,1 %   |
| 1          | Feed section                    | 60 - 80 °C     |
| 2          | Temperature Zone 1 - Zone 4     | 220 - 270 °C   |
| 3          | Nozzle temperature              | 230 - 300 °C   |
| 4          | Melt temperature                | 240 - 270 °C   |
| 5          | Mold temperature                | 40 - 80 °C     |
| $\ominus$  | Holding pressure, spec.         | 300 - 800 bar  |
| $\bigcirc$ | Back pressure, spec.            | 50 - 150 bar   |
|            | Injection speed                 | medium to high |
|            | Screw speed                     | 8 - 15 m/min   |
|            |                                 |                |



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## **Diagrams**

