

Compound No.: 8334

# AKROMID® PRELIMINARY T9 GF 50 1 natural (8334)

PPA GF50

AKROMID® T9 GF 50 1 natural (8334) is a 50% glass fibre reinforced, heat stabilized polyphthalamide with heat stabilization, high rigidity and strength, as well as high temperature and chemical resistance. The compound is based on PA9T and has lower moisture uptake than conventional PA6T variants. This leads to a significantly higher consistency of the glass transition temperature and higher strength at elevated temperatures especially in conditioned state.

# heat stabilised 130 electrically neutral reduced moisture metal substitution Properties Modulus Strength Impact 16.500 MPa 250 MPa 95 kJ/m²

# **Mechanical Properties**

| Tensile modulus ISO 527-2                    | 1 mm/min   d.a.m. | 16500 MPa |
|--|-------------------|-----------|
| Tensile stress at break ISO 527-2            | 5 mm/min   d.a.m. | 250 MPa   |
| Tensile strain at break ISO 527-2            | 5 mm/min   d.a.m. | 2,5 %     |
| Charpy impact strength ISO 179-1/1eU         | 23°C   d.a.m.     | 95 kJ/m²  |
| Charpy notched impact strength ISO 179-1/1eA | 23°C   d.a.m.     | 15 kJ/m²  |
|  |                   |           |

## **Thermal Properties**

| Glass transition temperature | DSC, 2nd heating | 125 °C |
|------------------------------|------------------|--------|
| ISO 11357-2                  | 55c, 2nd redding | .25 C  |



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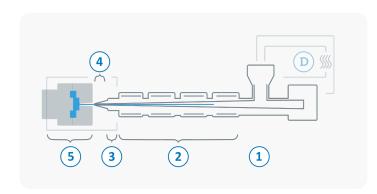
| Melting temperature ISO 11357-3 | DSC, 10K/min          | 300 °C     |
|---------------------------------|-----------------------|------------|
| Flammability                    |                       |            |
| <b>Flammability</b><br>UL 94    | 0,8 mm Wall thickness | HB Class   |
| General Properties              |                       |            |
| Density ISO 1183                | 23°C                  | 1,56 g/cm³ |





## **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) | 120 °C         |
|           | Processing moisture             | <0,05 %        |
| 1         | Feed section                    | 60 - 90 °C     |
| 2         | Temperature Zone 1 - Zone 4     | 300 - 340 °C   |
| 3         | Nozzle temperature              | 310 - 350 °C   |
| 4         | Melt temperature                | 310 - 340 °C   |
| 5         | Mold temperature                | >135 °C        |
| $\ominus$ | Holding pressure, spec.         | 300 - 800 bar  |
|           | Back pressure, spec.            | 50 - 150 bar   |
|           | Injection speed                 | medium to high |
|           | Screw speed                     | 8 - 15 m/min   |
|           |                                 |                |