

# AKROMID® B3 GF 40 black (3383)

Polyamide 6  
AKRO-PLASTIC GmbH

Message:

AKROMID® B3 GF 40 black (3383) is a 40% glass fibre reinforced polyamide 6 with high rigidity and strength  
Applications are mainly components in mechanical engineering and in the automotive industry

| General Information              |       |                                  |                   |                 |
|----------------------------------|-------|----------------------------------|-------------------|-----------------|
| Filler / Reinforcement           |       | Glass Fiber,40% Filler by Weight |                   |                 |
| Features                         |       | High Rigidity                    |                   |                 |
|                                  |       | High Strength                    |                   |                 |
| Uses                             |       | Engineered Applications          |                   |                 |
| Appearance                       |       | Black                            |                   |                 |
| Resin ID (ISO 1043)              |       | PA6 GF40                         |                   |                 |
| Physical                         | Dry   | Conditioned                      | Unit              | Test Method     |
| Density (23°C)                   | 1.45  | --                               | g/cm <sup>3</sup> | ISO 1183        |
| Spiral Flow                      | 48.0  | --                               | cm                | Internal Method |
| Molding Shrinkage                |       |                                  |                   | ISO 294-4       |
| Across Flow                      | 0.80  | --                               | %                 |                 |
| Flow                             | 0.30  | --                               | %                 |                 |
| Mechanical                       | Dry   | Conditioned                      | Unit              | Test Method     |
| Tensile Modulus                  | 12800 | 8200                             | MPa               | ISO 527-2/1     |
| Tensile Stress (Break)           | 210   | 130                              | MPa               | ISO 527-2/5     |
| Tensile Strain (Break)           | 4.0   | 5.0                              | %                 | ISO 527-2/5     |
| Flexural Modulus <sup>1</sup>    | 10300 | --                               | MPa               | ISO 178         |
| Flexural Stress <sup>2</sup>     | 300   | --                               | MPa               | ISO 178         |
| Impact                           | Dry   | Conditioned                      | Unit              | Test Method     |
| Charpy Notched Impact Strength   |       |                                  |                   | ISO 179/1eA     |
| -40°C                            | 14    | --                               | kJ/m <sup>2</sup> |                 |
| -30°C                            | 14    | --                               | kJ/m <sup>2</sup> |                 |
| 23°C                             | 18    | 23                               | kJ/m <sup>2</sup> |                 |
| Charpy Unnotched Impact Strength |       |                                  |                   | ISO 179/1eU     |
| -40°C                            | 110   | --                               | kJ/m <sup>2</sup> |                 |
| -30°C                            | 110   | --                               | kJ/m <sup>2</sup> |                 |
| 23°C                             | 110   | 110                              | kJ/m <sup>2</sup> |                 |
| Notched Izod Impact Strength     |       |                                  |                   | ISO 180/1A      |
| -40°C                            | 14    | --                               | kJ/m <sup>2</sup> |                 |

| 23°C                                              | 20            | --          | kJ/m <sup>2</sup> |                |
|---------------------------------------------------|---------------|-------------|-------------------|----------------|
| Thermal                                           | Dry           | Conditioned | Unit              | Test Method    |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 215           | --          | °C                | ISO 75-2/A     |
| Melting Temperature <sup>3</sup>                  | 222           | --          | °C                | DIN EN 11357-1 |
| Flammability                                      | Dry           | Conditioned | Unit              | Test Method    |
| Burning Rate <sup>4</sup> (1.00 mm)               | < 100         | --          | mm/min            | FMVSS 302      |
| Flame Rating (1.60 mm)                            | HB            | --          |                   | UL 94          |
| Additional Information                            | Dry           | Conditioned | Unit              | Test Method    |
| Reinforcement Content                             | 40            | --          | %                 | ISO 1172       |
| NOTE                                              |               |             |                   |                |
| 1.                                                | 2.0 mm/min    |             |                   |                |
| 2.                                                | 2.0 mm/min    |             |                   |                |
| 3.                                                | 10 K/min, DSC |             |                   |                |
| 4.                                                | > 1 mm        |             |                   |                |

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