

# AKROMID® B3 GF 30 RM-M natural (3291)

Polyamide 6  
AKRO-PLASTIC GmbH

Message:

AKROMID® B3 GF 30 RM-M natural (3291) is a 30% glass fibre reinforced polyamide 6 with high stiffness and strength, limited moisture absorption and light inherent color.  
Applications are housings and other dimensional stable parts in the automotive and electronic industry

| General Information                   |       |                                    |                   |                 |
|---------------------------------------|-------|------------------------------------|-------------------|-----------------|
| Filler / Reinforcement                |       | Glass Fiber,30% Filler by Weight   |                   |                 |
| Features                              |       | Good Dimensional Stability         |                   |                 |
|                                       |       | High Stiffness                     |                   |                 |
|                                       |       | High Strength                      |                   |                 |
|                                       |       | Low Moisture Absorption            |                   |                 |
| Uses                                  |       | Automotive Applications            |                   |                 |
|                                       |       | Electrical/Electronic Applications |                   |                 |
|                                       |       | Housings                           |                   |                 |
| Appearance                            |       | Natural Color                      |                   |                 |
| Resin ID (ISO 1043)                   |       | PA6 + X GF30                       |                   |                 |
| Physical                              | Dry   | Conditioned                        | Unit              | Test Method     |
| Density (23°C)                        | 1.41  | --                                 | g/cm <sup>3</sup> | ISO 1183        |
| Spiral Flow                           | 70.0  | --                                 | cm                | Internal Method |
| Molding Shrinkage                     |       |                                    |                   | ISO 294-4       |
| Across Flow                           | 0.80  | --                                 | %                 |                 |
| Flow                                  | 0.30  | --                                 | %                 |                 |
| Humidity Absorption - 62% RH (70°C)   | 1.7   | --                                 | %                 | ISO 1110        |
| Flexural Strain at Break <sup>1</sup> | 3.2   | --                                 | %                 | ISO 178         |
| Reinforcement Content                 | 30    | --                                 | %                 | ISO 1172        |
| Hardness                              | Dry   | Conditioned                        | Unit              | Test Method     |
| Ball Indentation Hardness (H 961/30)  | 230   | --                                 | MPa               | ISO 2039-1      |
| Mechanical                            | Dry   | Conditioned                        | Unit              | Test Method     |
| Tensile Modulus                       | 11000 | 7100                               | MPa               | ISO 527-2/1     |
| Tensile Stress (Break)                | 165   | 110                                | MPa               | ISO 527-2/5     |
| Tensile Strain (Break)                | 2.6   | 4.5                                | %                 | ISO 527-2/5     |
| Flexural Modulus <sup>2</sup>         | 9600  | --                                 | MPa               | ISO 178         |
| Flexural Stress <sup>3</sup>          | 250   | --                                 | MPa               | ISO 178         |
| Impact                                | Dry   | Conditioned                        | Unit              | Test Method     |

|                                         |               |             |                   |                |
|-----------------------------------------|---------------|-------------|-------------------|----------------|
| Charpy Notched Impact Strength          |               |             |                   | ISO 179/1eA    |
| -30°C                                   | 10            | 10          | kJ/m <sup>2</sup> |                |
| 23°C                                    | 12            | 15          | kJ/m <sup>2</sup> |                |
| Charpy Unnotched Impact Strength        |               |             |                   | ISO 179/1eU    |
| -30°C                                   | 65            | 60          | kJ/m <sup>2</sup> |                |
| 23°C                                    | 70            | 70          | kJ/m <sup>2</sup> |                |
| Thermal                                 | Dry           | Conditioned | Unit              | Test Method    |
| Heat Deflection Temperature             |               |             |                   |                |
| 1.8 MPa, Unannealed                     | 210           | --          | °C                | ISO 75-2/A     |
| 8.0 MPa, Unannealed                     | 160           | --          | °C                | ISO 75-2/C     |
| Melting Temperature <sup>4</sup>        | 225           | --          | °C                | DIN EN 11357-1 |
| Electrical                              | Dry           | Conditioned | Unit              | Test Method    |
| Comparative Tracking Index (Solution A) | 600           | --          | V                 | IEC 60112      |
| Flammability                            | Dry           | Conditioned | Unit              | Test Method    |
| Burning Rate <sup>5</sup> (1.00 mm)     | < 100         | --          | mm/min            | FMVSS 302      |
| Flame Rating (0.800 mm)                 | HB            | --          |                   | UL 94          |
| NOTE                                    |               |             |                   |                |
| 1.                                      | 2 mm/min      |             |                   |                |
| 2.                                      | 2.0 mm/min    |             |                   |                |
| 3.                                      | 2.0 mm/min    |             |                   |                |
| 4.                                      | 10 K/min, DSC |             |                   |                |
| 5.                                      | > 1 mm        |             |                   |                |

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