

# AKROTEK® PK-VM GF 60 natural (4923)

Polyketone, Aliphatic

AKRO-PLASTIC GmbH

Message:

AKROTEK® PK-VM GF 60 natural (4923) is a 60% glass fibre reinforced Polyketon with very high stiffness and strength and light inherent color. Applications are mainly components in mechanical engineering and the automotive industry.

| General Information                     |              |                                  |                   |                 |
|-----------------------------------------|--------------|----------------------------------|-------------------|-----------------|
| Filler / Reinforcement                  |              | Glass Fiber,60% Filler by Weight |                   |                 |
| Features                                |              | High Stiffness                   |                   |                 |
|                                         |              | High Strength                    |                   |                 |
| Uses                                    |              | Automotive Applications          |                   |                 |
|                                         |              | Engineered Applications          |                   |                 |
| Appearance                              |              | Natural Color                    |                   |                 |
| Resin ID (ISO 1043)                     |              | PK GF60                          |                   |                 |
| Physical                                | Dry          | Conditioned                      | Unit              | Test Method     |
| Density (23°C)                          | 1.80         | --                               | g/cm <sup>3</sup> | ISO 1183        |
| Spiral Flow                             | 29.0         | --                               | cm                | Internal Method |
| Molding Shrinkage                       |              |                                  |                   | ISO 294-4       |
| Across Flow                             | 0.60         | --                               | %                 |                 |
| Flow                                    | 0.40         | --                               | %                 |                 |
| Humidity Absorption - 62% RH (70°C)     | 0.30 to 0.40 | --                               | %                 | ISO 1110        |
| Reinforcement Content                   | 60           | --                               | %                 | ISO 1172        |
| Mechanical                              | Dry          | Conditioned                      | Unit              | Test Method     |
| Tensile Modulus                         | 17500        | 17300                            | MPa               | ISO 527-2/1     |
| Tensile Stress (Break)                  | 180          | 175                              | MPa               | ISO 527-2/5     |
| Tensile Strain (Break)                  | 1.5          | 1.5                              | %                 | ISO 527-2/5     |
| Impact                                  | Dry          | Conditioned                      | Unit              | Test Method     |
| Charpy Notched Impact Strength (23°C)   | 20           | 20                               | kJ/m <sup>2</sup> | ISO 179/1eA     |
| Charpy Unnotched Impact Strength (23°C) | 70           | 60                               | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Thermal                                 | Dry          | Conditioned                      | Unit              | Test Method     |
| Heat Deflection Temperature             |              |                                  |                   |                 |
| 0.45 MPa, Unannealed                    | 220          | --                               | °C                | ISO 75-2/B      |
| 1.8 MPa, Unannealed                     | 215          | --                               | °C                | ISO 75-2/A      |
| Melting Temperature <sup>1</sup>        | 220          | --                               | °C                | DIN EN 11357-1  |
| Electrical                              | Dry          | Conditioned                      | Unit              | Test Method     |

|                                        |         |             |         |                |
|----------------------------------------|---------|-------------|---------|----------------|
| Surface Resistivity                    | 1.0E+12 | 1.0E+10     | ohms    | IEC 60093      |
| Volume Resistivity                     | 1.0E+13 | 1.0E+10     | ohms·cm | IEC 60093      |
| Flammability                           | Dry     | Conditioned | Unit    | Test Method    |
| Flame Rating (1.60 mm)                 | HB      | --          |         | UL 94          |
| Glow Wire Flammability Index (2.00 mm) | 650     | --          | °C      | IEC 60695-2-12 |
| NOTE                                   |         |             |         |                |

1. 10 K/min, DSC

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