

# AKROLOY® PA M 40 natural (2972)

Polyamide 66 + PA 6I/6T

AKRO-PLASTIC GmbH

Message:

AKROLOY® PA M 40 natural (2972) is a 40% mineral-filled polyamide blend with very good surface and slight tendency to warp even in conditioned state. AKROLOY PA reflex very grad for dimensionally accurate control elements and electronic components with optimum surface properties.

| General Information                        |            |                                    |                        |                |
|--------------------------------------------|------------|------------------------------------|------------------------|----------------|
| Filler / Reinforcement                     |            | Mineral,40% Filler by Weight       |                        |                |
| Features                                   |            | Good Dimensional Stability         |                        |                |
|                                            |            | Good Surface Finish                |                        |                |
|                                            |            | Low Warpage                        |                        |                |
| Uses                                       |            | Electrical/Electronic Applications |                        |                |
| Appearance                                 |            | Natural Color                      |                        |                |
| Resin ID (ISO 1043)                        |            | PA66 + PA6I/6T M40                 |                        |                |
| Physical                                   | Dry        | Conditioned                        | Unit                   | Test Method    |
| Density (23°C)                             | 1.48       | --                                 | g/cm <sup>3</sup>      | ISO 1183       |
| Melt Volume-Flow Rate (MVR) (275°C/5.0 kg) | 25.0       | --                                 | cm <sup>3</sup> /10min | ISO 1133       |
| Humidity Absorption - 62% RH (70°C)        | 1.6 to 1.8 | --                                 | %                      | ISO 1110       |
| Mechanical                                 | Dry        | Conditioned                        | Unit                   | Test Method    |
| Tensile Modulus                            | 6000       | 5800                               | MPa                    | ISO 527-2/1    |
| Tensile Stress (Break)                     | 95.0       | 72.0                               | MPa                    | ISO 527-2/5    |
| Tensile Strain (Break)                     | 4.0        | > 15                               | %                      | ISO 527-2/5    |
| Impact                                     | Dry        | Conditioned                        | Unit                   | Test Method    |
| Charpy Notched Impact Strength             |            |                                    |                        | ISO 179/1eA    |
| -30°C                                      | 5.0        | --                                 | kJ/m <sup>2</sup>      |                |
| 23°C                                       | 6.0        | 6.0                                | kJ/m <sup>2</sup>      |                |
| Charpy Unnotched Impact Strength           |            |                                    |                        | ISO 179/1eU    |
| -30°C                                      | > 120      | --                                 | kJ/m <sup>2</sup>      |                |
| 23°C                                       | > 130      | > 150                              | kJ/m <sup>2</sup>      |                |
| Thermal                                    | Dry        | Conditioned                        | Unit                   | Test Method    |
| Heat Deflection Temperature                |            |                                    |                        |                |
| 0.45 MPa, Unannealed                       | 105        | --                                 | °C                     | ISO 75-2/B     |
| 1.8 MPa, Unannealed                        | 90.0       | --                                 | °C                     | ISO 75-2/A     |
| Melting Temperature <sup>1</sup>           | 255        | --                                 | °C                     | DIN EN 11357-1 |
| NOTE                                       |            |                                    |                        |                |

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