

# AKROMID® A3 1 black (2417)

Polyamide 66  
AKRO-PLASTIC GmbH

Message:  
AKROMID® A3 1 black (2417) is a heat stabilised, nonreinforced polyamide 6.6  
Applications are housings and fixtures in automotive and electric industry

| General Information                 |                                    |             |                   |                 |
|-------------------------------------|------------------------------------|-------------|-------------------|-----------------|
| UL YellowCard                       | E148915-101092093                  |             |                   |                 |
| Additive                            | Heat Stabilizer                    |             |                   |                 |
| Features                            | Heat Stabilized                    |             |                   |                 |
| Uses                                | Automotive Applications            |             |                   |                 |
|                                     | Electrical/Electronic Applications |             |                   |                 |
|                                     | Housings                           |             |                   |                 |
| Appearance                          | Black                              |             |                   |                 |
| Resin ID (ISO 1043)                 | PA66                               |             |                   |                 |
| Physical                            | Dry                                | Conditioned | Unit              | Test Method     |
| Density (23°C)                      | 1.14                               | --          | g/cm <sup>3</sup> | ISO 1183        |
| Spiral Flow                         | 104                                | --          | cm                | Internal Method |
| Molding Shrinkage                   |                                    |             |                   | ISO 294-4       |
| Across Flow                         | 2.3                                | --          | %                 |                 |
| Flow                                | 1.9                                | --          | %                 |                 |
| Water Absorption (Saturation, 23°C) | 8.0 to 9.0                         | --          | %                 | ISO 62          |
| Humidity Absorption - 62% RH (70°C) | 2.9 to 3.1                         | --          | %                 | ISO 1110        |
| Mechanical                          | Dry                                | Conditioned | Unit              | Test Method     |
| Tensile Modulus                     | 3200                               | 1100        | MPa               | ISO 527-2/1     |
| Tensile Stress (Yield)              | 85.0                               | 50.0        | MPa               | ISO 527-2/50    |
| Tensile Strain (Break)              | > 20                               | > 50        | %                 | ISO 527-2/50    |
| Flexural Modulus <sup>1</sup>       | 2800                               | --          | MPa               | ISO 178         |
| Flexural Stress <sup>2</sup>        | 110                                | --          | MPa               | ISO 178         |
| Impact                              | Dry                                | Conditioned | Unit              | Test Method     |
| Charpy Notched Impact Strength      |                                    |             |                   | ISO 179/1eA     |
| -30°C                               | 2.0                                | --          | kJ/m <sup>2</sup> |                 |
| 23°C                                | 5.0                                | 13          | kJ/m <sup>2</sup> |                 |
| Charpy Unnotched Impact Strength    |                                    |             |                   | ISO 179/1eU     |
| -30°C                               | No Break                           | --          |                   |                 |
| 23°C                                | No Break                           | No Break    |                   |                 |

| Thermal                                  | Dry           | Conditioned | Unit     | Test Method    |
|------------------------------------------|---------------|-------------|----------|----------------|
| Heat Deflection Temperature              |               |             |          |                |
| 0.45 MPa, Unannealed                     | 215           | --          | °C       | ISO 75-2/B     |
| 1.8 MPa, Unannealed                      | 75.0          | --          | °C       | ISO 75-2/A     |
| Melting Temperature <sup>3</sup>         | 262           | --          | °C       | DIN EN 11357-1 |
| CLTE                                     |               |             |          | ISO 11359-2    |
| Flow : 23 to 80°C                        | 7.1E-5        | --          | cm/cm/°C |                |
| Transverse : 23 to 80°C                  | 1.1E-4        | --          | cm/cm/°C |                |
| Electrical                               | Dry           | Conditioned | Unit     | Test Method    |
| Surface Resistivity                      | 1.0E+13       | 1.0E+10     | ohms     | IEC 60093      |
| Volume Resistivity                       | 1.0E+13       | 1.0E+10     | ohms·cm  | IEC 60093      |
| Comparative Tracking Index (Solution A)  | 600           | --          | V        | IEC 60112      |
| Flammability                             | Dry           | Conditioned | Unit     | Test Method    |
| Burning Rate <sup>4</sup> (1.00 mm)      | < 100         | --          | mm/min   | FMVSS 302      |
| Flame Rating (0.800 mm)                  | V-2           | --          |          | UL 94          |
| Glow Wire Flammability Index (1.60 mm)   | 750           | --          | °C       | IEC 60695-2-12 |
| Glow Wire Ignition Temperature (1.60 mm) | 675           | --          | °C       | IEC 60695-2-13 |
| NOTE                                     |               |             |          |                |
| 1.                                       | 2.0 mm/min    |             |          |                |
| 2.                                       | 2.0 mm/min    |             |          |                |
| 3.                                       | 10 K/min, DSC |             |          |                |
| 4.                                       | >1 mm         |             |          |                |

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