

# Radilon® A 42K 100 M NAT

Polyamide 66

Radici Plastics

## Message:

PA66 high viscosity extrusion grade. Heat stabilized. Natural colour.

Suitable for extrusion of tubes, profiles, bars, rods and sheets. Also suitable for injection moulding of high thickness items.

ISO 1043 : PA66-T

| General Information                       |      |                                            |                   |                 |
|-------------------------------------------|------|--------------------------------------------|-------------------|-----------------|
| UL YellowCard                             |      | E148796-101473248                          | E195505-101510653 |                 |
| Additive                                  |      | Heat Stabilizer                            |                   |                 |
| Features                                  |      | Heat Stabilized                            |                   |                 |
|                                           |      | High Viscosity                             |                   |                 |
| Uses                                      |      | Profiles                                   |                   |                 |
|                                           |      | Rods                                       |                   |                 |
|                                           |      | Sheet                                      |                   |                 |
|                                           |      | Thick-walled Parts                         |                   |                 |
|                                           |      | Tubing                                     |                   |                 |
| RoHS Compliance                           |      | RoHS Compliant                             |                   |                 |
| Appearance                                |      | Natural Color                              |                   |                 |
| Processing Method                         |      | Extrusion                                  |                   |                 |
|                                           |      | Injection Molding                          |                   |                 |
| Multi-Point Data                          |      | Isothermal Stress vs. Strain (ISO 11403-1) |                   |                 |
|                                           |      | Viscosity vs. Shear Rate (ISO 11403-2)     |                   |                 |
| Resin ID (ISO 1043)                       |      | PA66-T                                     |                   |                 |
| Physical                                  | Dry  | Conditioned                                | Unit              | Test Method     |
| Density                                   | 1.14 | --                                         | g/cm³             | ISO 1183        |
| Water Absorption                          |      |                                            |                   | ISO 62          |
| Saturation, 23°C, 2.00 mm                 | 8.4  | --                                         | %                 |                 |
| Equilibrium, 23°C, 2.00 mm, 50% RH        | 2.1  | --                                         | %                 |                 |
| Viscosity Number (H2SO4 (Sulphuric Acid)) | 260  | --                                         | cm³/g             | ISO 307         |
| Mechanical                                | Dry  | Conditioned                                | Unit              | Test Method     |
| Tensile Modulus                           | 3200 | 1600                                       | MPa               | ISO 527-2/1A/1  |
| Tensile Stress (Yield)                    | 85.0 | 60.0                                       | MPa               | ISO 527-2/1A/50 |
| Tensile Strain (Yield)                    | 4.5  | 25                                         | %                 | ISO 527-2/1A/50 |

|                                        |              |             |                   |                 |
|----------------------------------------|--------------|-------------|-------------------|-----------------|
| Nominal Tensile Strain at Break        | 40           | > 50        | %                 | ISO 527-2/1A/50 |
| Flexural Modulus <sup>1</sup>          | 2850         | --          | 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                                  | 5.0          | --          | kJ/m <sup>2</sup> |                 |
| 23°C                                   | 6.5          | 8.0         | kJ/m <sup>2</sup> |                 |
| Thermal                                | Dry          | Conditioned | Unit              | Test Method     |
| Heat Deflection Temperature            |              |             |                   |                 |
| 0.45 MPa, Unannealed                   | 195          | --          | °C                | ISO 75-2/Bf     |
| 1.8 MPa, Unannealed                    | 75.0         | --          | °C                | ISO 75-2/Af     |
| Vicat Softening Temperature            | 240          | --          | °C                | ISO 306/B50     |
| Melting Temperature <sup>3</sup>       | 260          | --          | °C                | ISO 11357       |
| Electrical                             | Dry          | Conditioned | Unit              | Test Method     |
| Surface Resistivity                    | 1.0E+12      | 1.0E+10     | ohms              | IEC 60093       |
| Volume Resistivity                     | 1.0E+15      | 1.0E+13     | ohms · cm         | IEC 60093       |
| Flammability                           | Dry          | Conditioned | Unit              | Test Method     |
| Burning Rate                           | 0.0          | --          | mm/min            | FMVSS 302       |
| Flame Rating (0.800 mm)                | HB           | --          |                   | UL 94           |
| Glow Wire Flammability Index (2.00 mm) | 750          | --          | °C                | IEC 60695-2-12  |
| Injection                              | Dry          | Unit        |                   |                 |
| Drying Temperature - Desiccant Dryer   | 80.0         |             | °C                |                 |
| Drying Time - Desiccant Dryer          | 2.0 to 4.0   |             | hr                |                 |
| Dew Point - Desiccant Dryer            | < -20.0      |             | °C                |                 |
| Suggested Max Moisture                 | 0.15         |             | %                 |                 |
| Processing (Melt) Temp                 | 280 to 300   |             | °C                |                 |
| Mold Temperature                       | 70.0 to 90.0 |             | °C                |                 |
| Injection Rate                         | Moderate     |             |                   |                 |
| Extrusion                              | Dry          | Unit        |                   |                 |
| Drying Temperature                     | 80.0         |             | °C                |                 |
| Drying Time                            | 2.0 to 4.0   |             | hr                |                 |
| Suggested Max Moisture                 | 0.15         |             | %                 |                 |
| Melt Temperature                       | 270 to 290   |             | °C                |                 |
| NOTE                                   |              |             |                   |                 |
| 1.                                     | 2.0 mm/min   |             |                   |                 |
| 2.                                     | 2.0 mm/min   |             |                   |                 |
| 3.                                     | 10°C/min     |             |                   |                 |

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