

RADILON S RV500K 333 BK

DESCRIPTION

PA6 50% glass fibre reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring very high stiffness and high mechanical resistance, as in case of metal replacement applications. Good resistance to thermal ageing.

ISO 1043: PA6-GF50

REGIONAL AVAILABILITY: North America, Europe, Asia Pacific, South and Central America, Near East/Africa

MATERIAL HANDLING AND PROCESSING

The material is delivered in moisture-proof packaging ready for processing. Maximum recommended water content for best processing is 0.15%. Typical conditions with a desiccant drier: temperature 80 ° C, dew point -20 ° C or below, time 2-4 h or more. Special care must be taken to avoid moisture absorption and contamination with other polymers when adding regrind material. Colour variation and mechanical properties reduction may occur and should always be carefully monitored.

Injection Molding Processing Parameters

Melt Temperature
240 - 280°C

Mold Temperature
80 - 90°C

Injection Speed
medium-high

PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet
ROHS compliant 2011/65/EU and following amendments



RADILON S RV500K 333 BK

| PROPERTY | STANDARD | UNIT | VALUE | |
|--|--------------------------|----------------|-------------------|-----------|
| | | | DAM* | Cond** |
| PHYSICAL PROPERTIES | | | | |
| Density | | | 1570 | |
| Moulding shrinkage - Parallel / Normal | 280/90/60 ^[1] | ISO 1183 | kg/m ³ | |
| Water Absorption, immersion at 23°C | 2mm | ISO 294-4 | % | 0.2 / 0.7 |
| Moisture Absorption 23°C - 50%RH | 2mm | ISO 62 | % | 4.8 |
| | | ISO 62 | % | 1.4 |
| MECHANICAL PROPERTIES | | | | |
| Tensile Modulus | 1mm/min | ISO 527-2/1A | MPa | 16300 |
| Stress at Break | 5mm/min | ISO 527-2/1A | MPa | 210 |
| Strain at Break | 5mm/min | ISO 527-2/1A | % | 2.6 |
| Flexural Modulus | 2mm/min | ISO 178 | MPa | 15100 |
| Flexural Strength | 2mm/min | ISO 178 | MPa | 330 |
| Charpy Impact Strength | +23°C | ISO 179/1eU | kJ/m ² | 95 |
| Charpy Impact Strength | -30°C | ISO 179/1eU | kJ/m ² | 90 |
| Charpy Notched Impact Strength | +23°C | ISO 179/1eA | kJ/m ² | 15 |
| Charpy Notched Impact Strength | -30°C | ISO 179/1eA | kJ/m ² | 12 |
| THERMAL PROPERTIES | | | | |
| Melting Temperature | 10°C/min | ISO 11357-1/-3 | °C | 220 |
| Heat Deflection Temperature | 1.80 MPa | ISO 75/2Af | °C | 210 |
| Heat Deflection Temperature | 0.45 MPa | ISO 75/2Bf | °C | 215 |
| Vicat Softening Temperature | 50°C/h 50N | ISO 306 | °C | 215 |
| FLAMMABILITY PROPERTIES | | | | |
| Flammability | 0.8mm | UL 94 | class | HB |
| Glow Wire Flammability Index | 2mm | IEC 60695-2-12 | °C | 700 |
| Automotive Interior Flammability | 3mm | ISO 3795 | mm/min | 0 |
| ELECTRICAL PROPERTIES | | | | |
| Volume Resistivity | 500V | IEC 62631-3-1 | Ohm*m | 1E13 |
| Surface Resistivity | 500V | IEC 62631-3-2 | Ohm | 1E12 |
| Comparative Tracking Index | Sol.A | IEC 60112 | V | 550 |

*: DAM = Dry As Moulded state according to ISO 16396-2, **: Cond = Conditioned state similar to ISO 11110

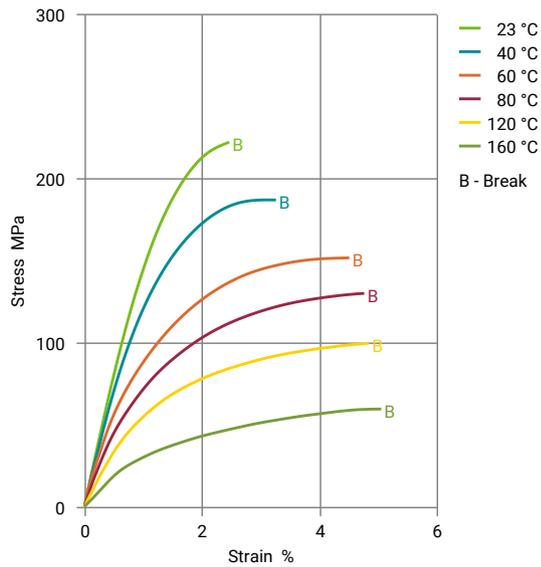
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



RADILON S RV500K 333 BK

DIAGRAMS

Stress-strain (dry)



Secant modulus-strain (dry)

