Product Information

# RADILON S RV500 100 NAT

*Material code* *Colour code*

## DESCRIPTION

PA6 50% glass fiber reinforced injection moulding grade. Natural colour.

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

ISO 1043 : PA6 GF50

## 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.

Processing Parameters

| Melt Temperature: | Mold Temperature: | Injection Speed: |
|---|---|---|
| 250 ÷ 290 °C | 80 ÷ 90 °C | Medium-high |

## PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet

RoHS compliant 2002/95/CE and following amendments



The information provided in this documentation corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience become available. The data provided reflects the average values of the properties measured over an adequate number of different production cycles and relates only to the designated material; this data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits nor used alone as the basis of design; it is not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since Radici Plastics cannot anticipate all variations in actual end-use conditions Radici Plastics makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights.

Technical data sheet

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| PROPERTY | | STANDARD | UNIT | VALUE DAM* | VALUE Cond** |
|---|---|---|---|---|---|
| **Physical Properties** | | | | | |
| Density | | ISO 1183 | Kg/m$^3$ | 1540 | |
| Moulding shrinkage – Parallel / Normal | 285/90/30*** | ISO 294-4 | % | 0.4 / 0.8 | |
| Moisture absorption 23°C – 50%RH | 2mm thk | ISO 62 | % | 1.4 | |
| Water absorption, immersion at 23°C | 2mm thk | ISO 62 | % | 4.8 | |
| **Mechanical Properties** | | | | | |
| Tensile Modulus | 1mm/min | ISO 527-2/1A | MPa | 16400 | 11500 |
| Stress at Break | 5mm/min | ISO 527-2/1A | MPa | 225 | 155 |
| Strain at Break | 5mm/min | ISO 527-2/1A | % | 2.7 | 3.1 |
| Flexural Modulus | 2mm/min | ISO 178 | MPa | 15300 | |
| Flexural Strength | 2mm/min | ISO 178 | MPa | 340 | |
| Charpy Impact Strength | +23°C | ISO 179/1 eU | KJ/m$^2$ | 100 | 110 |
| Charpy Impact Strength | -30°C | ISO 179/1 eU | KJ/m$^2$ | 95 | |
| Charpy Notched Impact Strength | +23°C | ISO 179/1 eA | KJ/m$^2$ | 18 | 30 |
| Charpy Notched Impact Strength | -30°C | ISO 179/1 eA | KJ/m$^2$ | 17 | |
| **Thermal Properties** | | | | | |
| Melting Temperature | 10°C/min | ISO 11357-1-3 | °C | 220 | |
| Heat Deflection Temperature | 1.8 MPa | ISO 75/2 A f | °C | 210 | |
| Vicat Softening Temperature | 50°C/h | ISO 306/B50 50N | °C | 215 | |
| **Flammability Properties** | | | | | |
| Flammability | 0.8mm | UL 94 | class | HB | |
| Glow Wire Flammability Index | 2mm | IEC 60695-2-1/2 | °C/mm | 700 | |
| Automotive interior flammability | Burn rate | FMVSS302 | mm/min | 0 | |
| **Electrical Properties** | | | | | |
| Volume resistivity | 500V | IEC 60093 | ohm · m | 1 E+13 | 1 E+11 |
| Surface resistivity | 500V | IEC 60093 | ohm | 1 E+12 | 1 E+10 |
| Comparative Tracking Index | Sol.A | IEC 60112 | V | 600 | |

*DAM = Dry As Moulded state **Cond = Conditioned state similar to ISO 1110 ***Melt Temp [°C] / Mold Temp [°C] / Cavity press [MPa]

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