

# RADILON A RV500RKC 306 BK

## DESCRIPTION

PA66 50% glass fibre reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring very high stiffness and mechanical resistance. Good resistance to hydrolysis. Product specifically intended for applications in civil and industrial water management sector. Suitable and approved for drinking water and foodstuff contact.

ISO 1043: PA66-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  
280 - 300°C

Mold Temperature  
80 - 100°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

Underwriters Laboratories Inc. certified materia [www.ul.com](http://www.ul.com)

Suitable for materials and articles intended to come into contact directly or indirectly with food in compliance with EU 10/2011 and FDA Title 21 CFR Chapter 1, part 177.1500

Suitable and approved for drinking water contact.

Please get in contact with our Customer Service for drinking water contact approvals and further information.



# RADILON A RV500RKC 306 BK

| PROPERTY                               | STANDARD                 | UNIT              | VALUE<br>DAM* | Cond** |
|----------------------------------------|--------------------------|-------------------|---------------|--------|
| <b>PHYSICAL PROPERTIES</b>             |                          |                   |               |        |
| Density                                |                          | kg/m <sup>3</sup> | 1570          |        |
| Moulding shrinkage - Parallel / Normal | 300/90/60 <sup>[1]</sup> | %                 | 0.2 / 0.7     |        |
| Water Absorption, immersion at 23°C    | 2mm                      | %                 | 4             |        |
| Moisture Absorption 23°C - 50%RH       | 2mm                      | %                 | 1.1           |        |
| <b>MECHANICAL PROPERTIES</b>           |                          |                   |               |        |
| Tensile Modulus                        | 1mm/min                  | MPa               | 16200         | 14000  |
| Stress at Break                        | 5mm/min                  | MPa               | 220           | 180    |
| Strain at Break                        | 5mm/min                  | %                 | 2.5           | 3.3    |
| Flexural Modulus                       | 2mm/min                  | MPa               | 15100         | 11500  |
| Flexural Strength                      | 2mm/min                  | MPa               | 335           | 285    |
| Charpy Impact Strength                 | +23°C                    | kJ/m <sup>2</sup> | 90            | 100    |
| Charpy Notched Impact Strength         | +23°C                    | kJ/m <sup>2</sup> | 14            | 19     |
| <b>THERMAL PROPERTIES</b>              |                          |                   |               |        |
| Melting Temperature                    | 10°C/min                 | °C                | 260           |        |
| Heat Deflection Temperature            | 1.80 MPa                 | °C                | 250           |        |
| Vicat Softening Temperature            | 50°C/h 50N               | °C                | 255           |        |
| <b>FLAMMABILITY PROPERTIES</b>         |                          |                   |               |        |
| Flammability                           | 0.8mm                    | class             | HB            |        |
| Glow Wire Flammability Index           | 2mm                      | °C                | 700           |        |
| Automotive Interior Flammability       | 3mm                      | mm/min            | 0             |        |
| <b>ELECTRICAL PROPERTIES</b>           |                          |                   |               |        |
| Volume Resistivity                     | 500V                     | Ohm*m             | 1E13          | 1E11   |
| Surface Resistivity                    | 500V                     | Ohm               | 1E12          | 1E10   |
| Comparative Tracking Index             | Vol.A                    | V                 | 550           |        |

\*: DAM = Dry As Moulded state according to ISO 16396-2, \*\*: Cond = Conditioned state similar to ISO 1110

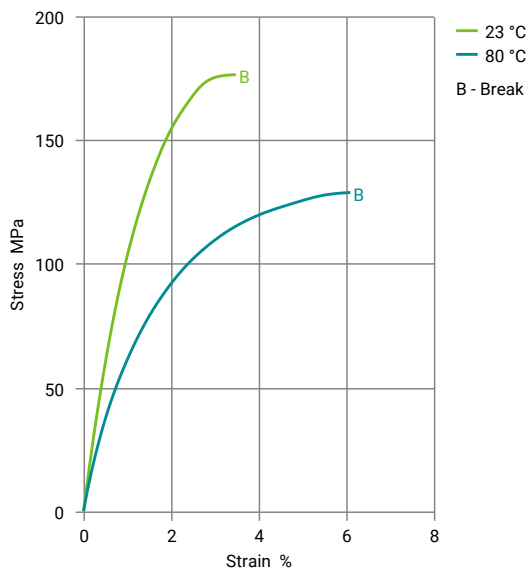
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



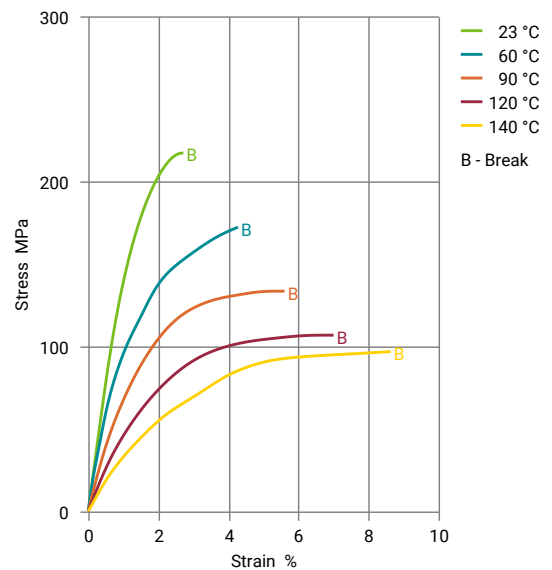
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## DIAGRAMS

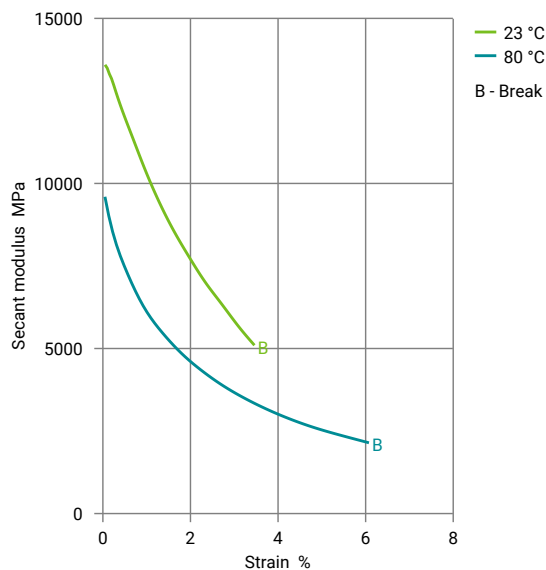
### Stress-strain (cond.)



### Stress-strain (dry)



### Secant modulus-strain (cond.)



### Secant modulus-strain (dry)

