

# RADILON A RV500 100 NT

## DESCRIPTION

PA66 50% glass fibre 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: 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  
290 - 305°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



# RADILON A RV500 100 NT

PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
<b>PHYSICAL PROPERTIES</b>				
Density		kg/m <sup>3</sup>	1570	
Moulding shrinkage - Parallel / Normal	300/90/60 <sup>[1]</sup>	ISO 1183 ISO 294-4	%	0.2 / 0.7
Water Absorption, immersion at 23°C	2mm	ISO 62	%	4.6
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.1
<b>MECHANICAL PROPERTIES</b>				
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	16000
Stress at Break	5mm/min	ISO 527-2/1A	MPa	240
Strain at Break	5mm/min	ISO 527-2/1A	%	3.4
Flexural Modulus	2mm/min	ISO 178	MPa	14600
Flexural Strength	2mm/min	ISO 178	MPa	370
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	105
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	100
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	17
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	16
<b>THERMAL PROPERTIES</b>				
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	260
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	250
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C	255
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	250
Coeff. of Linear Therm. Expansion	parallel, 23°C-55°C	ISO 11359-1/-2	E-6/K	15
Coeff. of Linear Therm. Expansion	normal, 23°C-55°C	ISO 11359-1/-2	E-6/K	85
<b>FLAMMABILITY PROPERTIES</b>				
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
<b>ELECTRICAL PROPERTIES</b>				
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	600

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

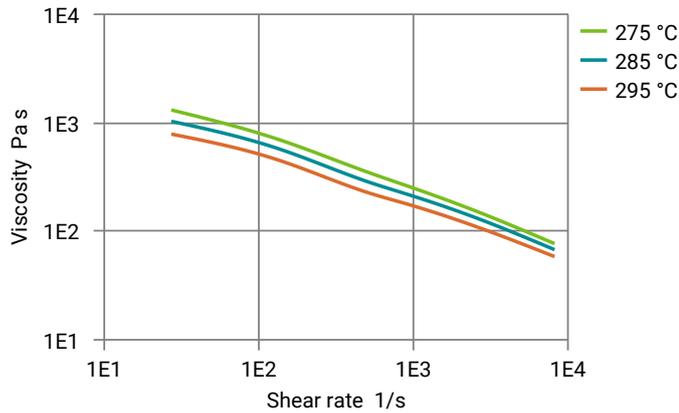
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



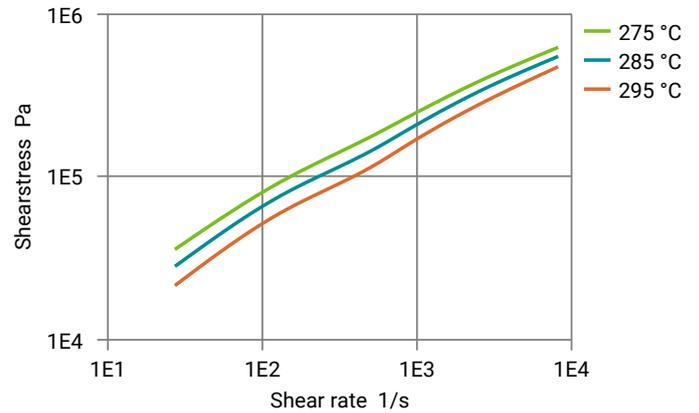
# RADILON A RV500 100 NT

## DIAGRAMS

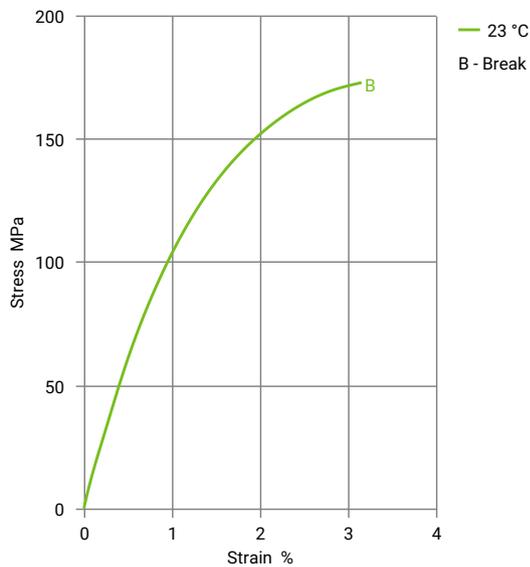
### Viscosity-shear rate



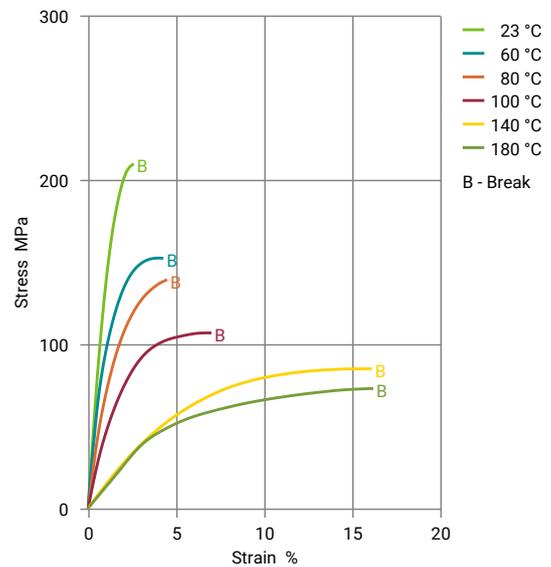
### Shearstress-shear rate



### Stress-strain (cond.)

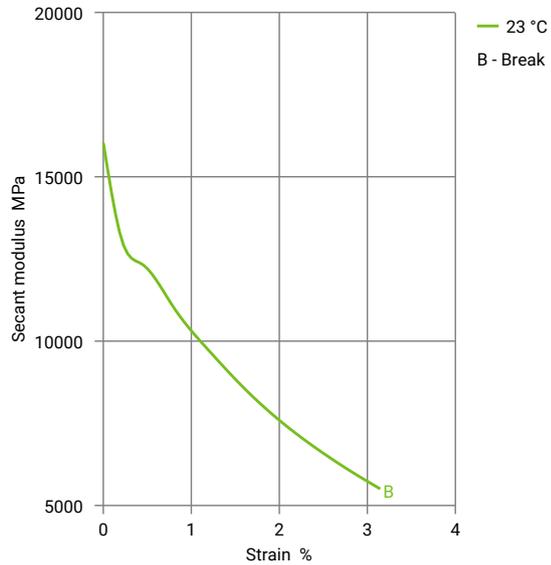


### Stress-strain (dry)

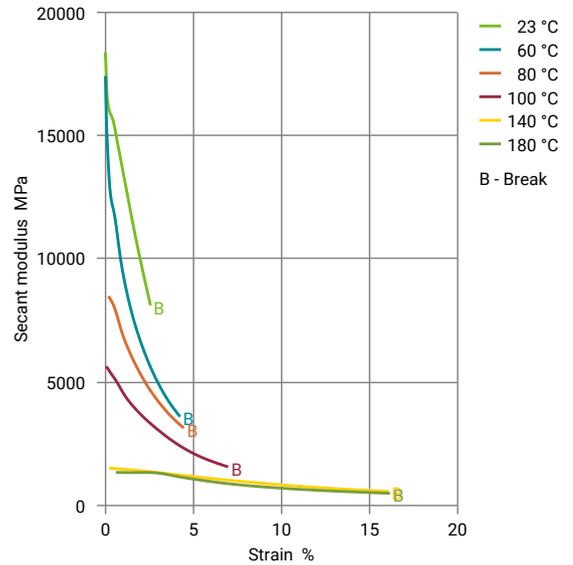


# RADILON A RV500 100 NT

Secant modulus-strain (cond.)



Secant modulus-strain (dry)



Specific volume-temperature (pvT)

