

## PRODUCT INFORMATION

# RADILON AESTUS T1 RV330RG 3900 BK

PRELIMINARY

### DESCRIPTION

PPA injection moulding grade 33% glass fiber reinforced with high glass transition temperature and high melting point. Black color.

Suitable for parts requiring high stiffness and strength. High resistance to hot water and automotive cooling circuit liquids.

ISO 1043: PA-T GF33

*THE CHARACTERISTICS SHOWN HERE MUST BE CONSIDERED PRELIMINARY AND INDICATIVE FOR A PRODUCT AT DEVELOPMENTAL STAGE*

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 0.10%. Typical conditions with a desiccant drier: temperature 120° C, dew point -20 ° C or below, time 4 h or more. Avoid excessive shear rates and high thermal stresses for better processing. 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  
320 - 340°C

Mold Temperature  
130 - 150°C

Injection Speed  
high

### PRODUCT SAFETY AND APPROVALS

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

## TECHNICAL DATA SHEET

# RADILON AESTUS T1 RV330RG 3900 BK

PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
<b>PHYSICAL PROPERTIES</b>				
Density		kg/m <sup>3</sup>	1450	
Moulding shrinkage - Parallel / Normal	325 /140 /60 <sup>[1]</sup>	%	0.3 / 0.7	
Water Absorption, 24h immersion at 23°C	2mm	%	0.2	
<b>MECHANICAL PROPERTIES</b>				
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	11900 11800
Stress at Break	5mm/min	ISO 527-2/1A	MPa	215 195
Strain at Break	5mm/min	ISO 527-2/1A	%	2.6 2.5
Flexural Modulus	2mm/min	ISO 178	MPa	10500
Flexural Strength	2mm/min	ISO 178	MPa	305
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	75
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	65
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	13 12
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	12
<b>THERMAL PROPERTIES</b>				
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	312
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	275
Coeff. of Linear Therm. Expansion	parallel, 23°C-55°C	ISO 11359-1/-2	E-6/K	20
Coeff. of Linear Therm. Expansion	normal, 23°C-55°C	ISO 11359-1/-2	E-6/K	68
<b>FLAMMABILITY PROPERTIES</b>				
Flammability	0.8mm	UL 94	class	HB
<b>ELECTRICAL PROPERTIES</b>				
Volume Resistivity	500V	IEC 60093	Ohm*m	1E13
Surface Resistivity	500V	IEC 60093	Ohm	1E12

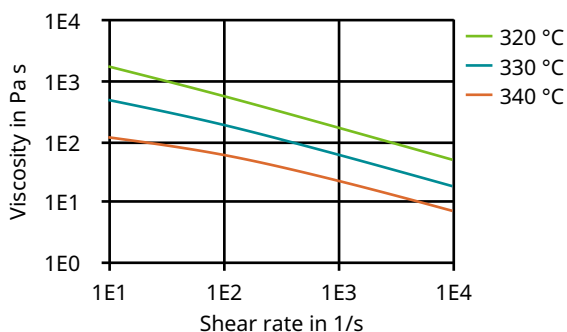
\*: DAM = Dry As Moulded state according to ISO 16396-2 \*\*: Cond = Conditioned state similar to ISO 1110 1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]

## TECHNICAL DATA SHEET

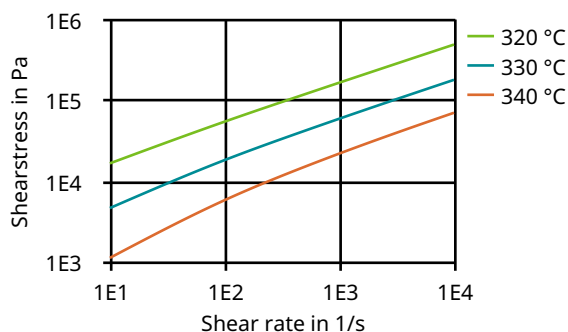
# RADILON AESTUS T1 RV330RG 3900 BK

## Diagrams

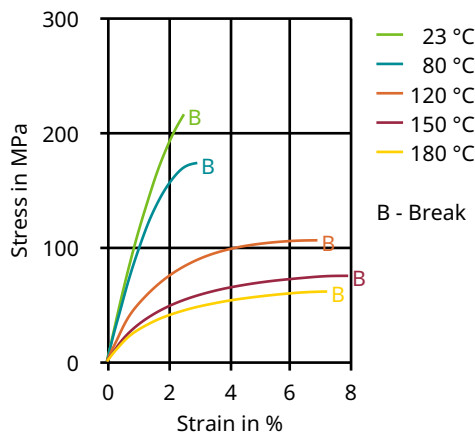
## Viscosity-shear rate



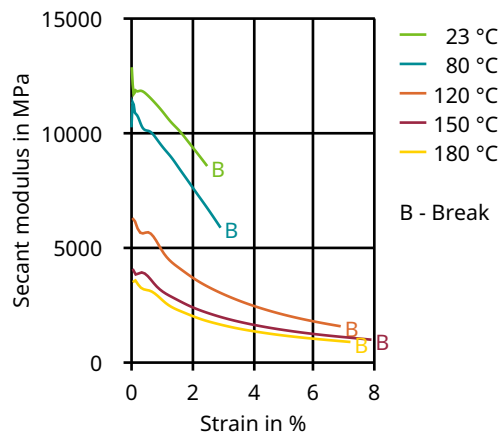
## Shearstress-shear rate



## Stress-strain (dry)



## Secant modulus-strain (dry)



## Tensile modulus-temperature (dry)

