

# RADILON AESTUS T1 RV400RKC 106 NT

PRELIMINARY

## DESCRIPTION

PPA injection moulding grade 40% glass fibre reinforced with high glass transition temperature and high melting point. Natural colour.

Suitable for parts requiring high stiffness and strength. High resistance to hot water contact, suitable for drinking water contact.

ISO 1043: PA6T/6I-GF40

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

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

## 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/EU and following amendments

Suitable for materials and articles intended to come into contact directly or indirectly with food in compliance with EU 10/2011

Suitable and approved for drinking water contact.

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



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PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
<b>PHYSICAL PROPERTIES</b>				
Density	ISO 1183	kg/m <sup>3</sup>	1510	
Moulding shrinkage - Parallel / Normal	ISO 294-4	%	0.2 / 0.7	
Water Absorption, 24h immersion at 23°C	ISO 62	%	0.1	
Moisture Absorption 23°C - 50%RH	ISO 62	%	1.2	
<b>MECHANICAL PROPERTIES</b>				
Tensile Modulus	ISO 527-2/1A	MPa	15300	14600
Stress at Break	ISO 527-2/1A	MPa	245	235
Strain at Break	ISO 527-2/1A	%	2.2	2.4
Flexural Modulus	ISO 178	MPa	14900	14000
Flexural Strength	ISO 178	MPa	380	365
Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	97.5	100
Charpy Notched Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	13.5	14
<b>THERMAL PROPERTIES</b>				
Melting Temperature	ISO 11357-1/-3	°C	315	
Heat Deflection Temperature	ISO 75/2Af	°C	280	
<b>FLAMMABILITY PROPERTIES</b>				
Flammability	UL 94	class	HB	
<b>ELECTRICAL PROPERTIES</b>				
Volume Resistivity	IEC 62631-3-1	Ohm*m	1E13	1E11
Surface Resistivity	IEC 62631-3-2	Ohm	1E12	1E10

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

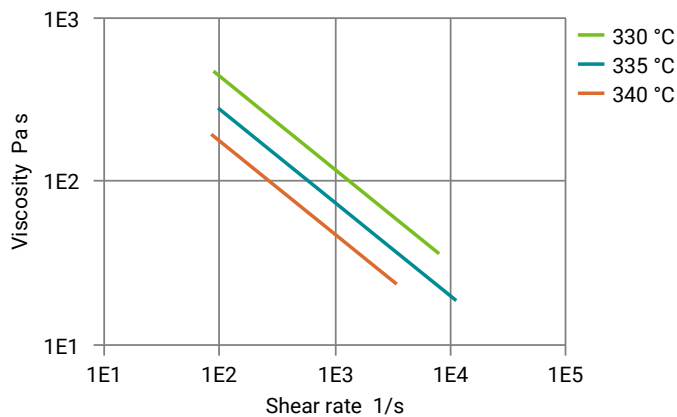
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



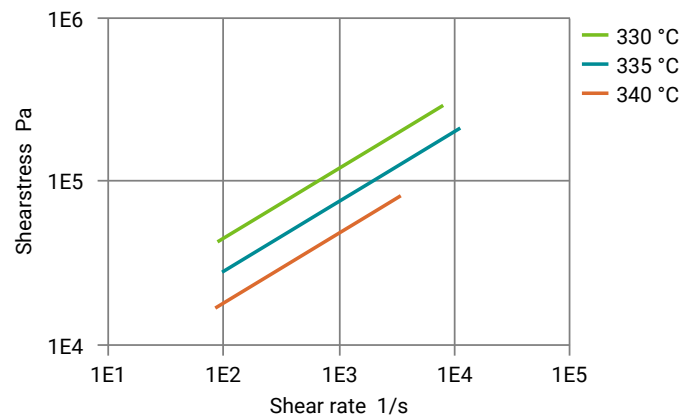
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## DIAGRAMS

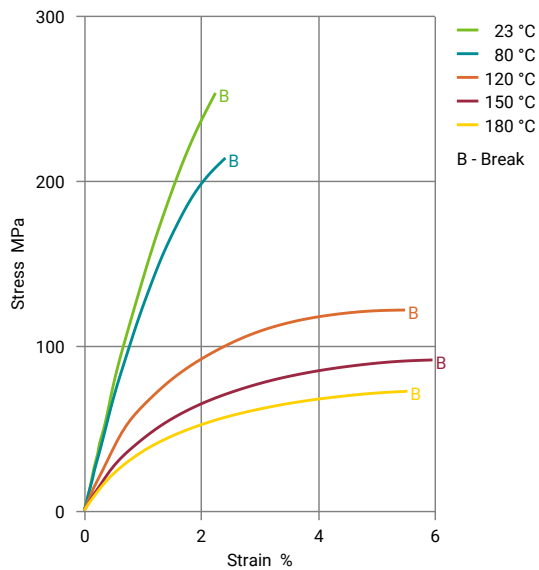
### Viscosity-shear rate



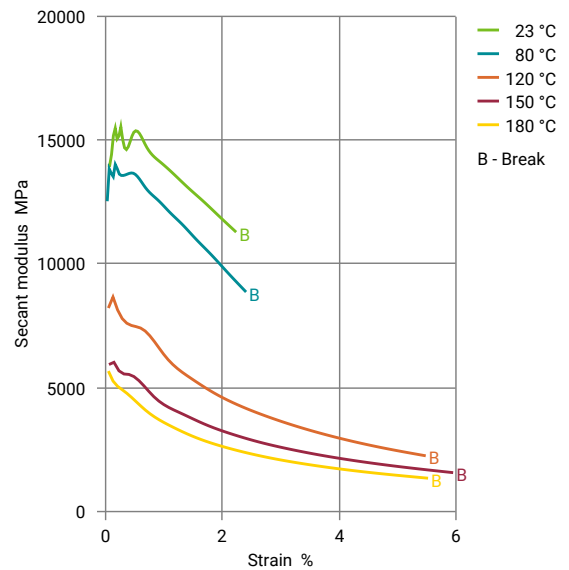
### Shearstress-shear rate



### Stress-strain (dry)



### Secant modulus-strain (dry)



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Specific volume-temperature (pvT)

Thermal expansion

