

RADILON AESTUS T1 RV500K 333 BK

DESCRIPTION

PPA injection moulding grade 50% glass fibre reinforced with high glass transition temperature and high melting point. Heat stabilized. Black colour.

Suitable for parts requiring very high stiffness and strength.

ISO 1043: PA6T/6I-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 0.10%. 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
330 - 340°C

Mold Temperature
140 - 160°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



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PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
PHYSICAL PROPERTIES				
Density			1640	
Moulding shrinkage - Parallel / Normal	330/140/60 ^[1]	ISO 1183 ISO 294-4	kg/m ³ %	0.1 / 0.5
Water Absorption, 24h immersion at 23°C	2mm	ISO 62	%	0.1
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.1
MECHANICAL PROPERTIES				
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	19100
Stress at Break	5mm/min	ISO 527-2/1A	MPa	275
Strain at Break	5mm/min	ISO 527-2/1A	%	2.1
Flexural Modulus	2mm/min	ISO 178	MPa	17800
Flexural Strength	2mm/min	ISO 178	MPa	400
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	95
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m ²	85
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m ²	15
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m ²	13
THERMAL PROPERTIES				
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	315
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	280
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	50
FLAMMABILITY PROPERTIES				
Flammability	0.8mm	UL 94	class	HB
Automotive Interior Flammability	3mm	ISO 3795	mm/min	<10
ELECTRICAL PROPERTIES				
Volume Resistivity	500V	IEC 62631-3-1	Ohm*m	1E13
Surface Resistivity	500V	IEC 62631-3-2	Ohm	1E12

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

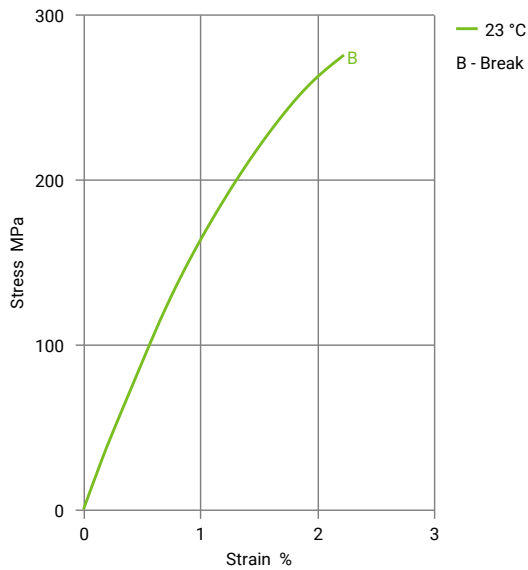
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



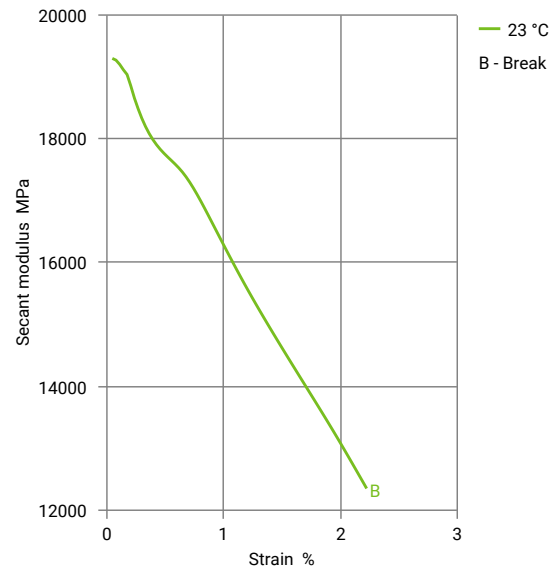
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DIAGRAMS

Stress-strain (dry)



Secant modulus-strain (dry)



Thermal expansion

