RADILON AESTUS T2 RV350W 333 BK

PRELIMINARY

DESCRIPTION

PPA injection moulding grade 35% glass fiber reinforced with high melting point. Heat stabilized. Black color.

Suitable for parts requiring high stiffness and strength, intended to work at high temperatures.

ISO 1043: PA-T GF35

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	Mold Temperature	Injection Speed
320 - 340°C	100 - 120°C	medium

PRODUCT SAFETY AND APPROVALS

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

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PROPERTY		STANDARD	UNIT	VALUE DAM*	VALUE Cond**
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m³	1460	
Water Absorption, 24h immersion at 23°C	2mm	ISO 62	%	0.2	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	12150	10900
Stress at Break	5mm/min	ISO 527-2/1A	MPa	185	160
Strain at Break	5mm/min	ISO 527-2/1A	%	1.9	2.2
Flexural Modulus	2mm/min	ISO 178	MPa	10500	
Flexural Strength	2mm/min	ISO 178	MPa	285	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m²	55	
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m²	46	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m²	11.5	12
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m²	12	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	310	
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	18	
Coeff. of Linear Therm. Expansion	normal, 23°C-55°C	ISO 11359-1/-2	E-6/K	73	
FLAMMABILITY PROPERTIES					
Flammability	0.8mm	UL 94	class	HB	
ELECTRICAL PROPERTIES					
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

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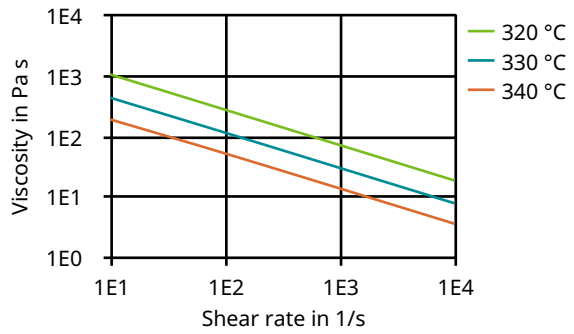
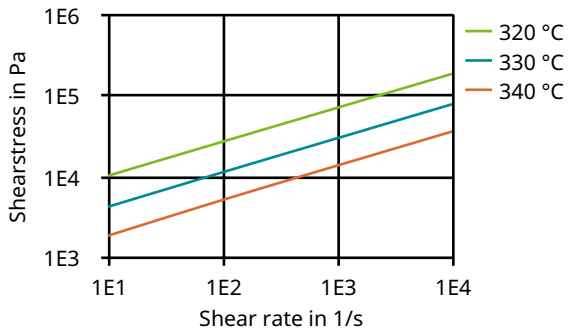
Diagrams

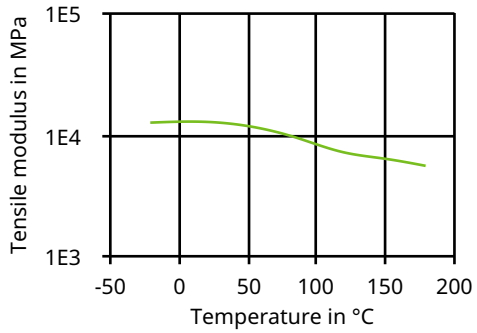
Viscosity-shear rate



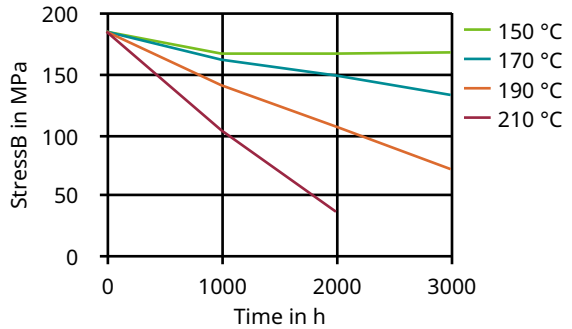
Shearstress-shear rate



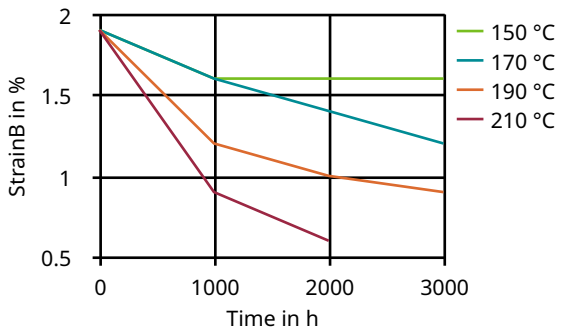
Tensile modulus-temperature (dry)



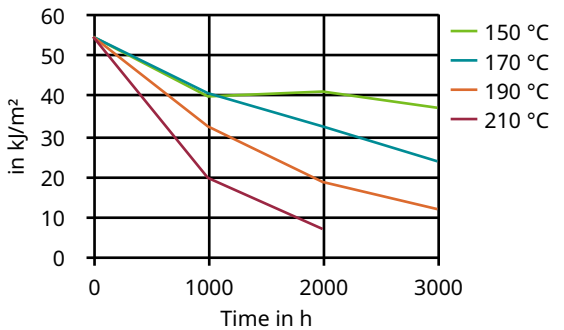
LTHA-Stress at Break 4mm (dry)



LTHA-Strain at Break 4mm (dry)



LTHA-Charpy Impact Strength (23°C) 4mm (dry)



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LTHA-Charpy Notched Impact Strength (23°C) 4mm (dry)