

RADILON S RV500W 333 BK

DESCRIPTION

PA6 50% glass fibre reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring high stiffness, good mechanical resistance and excellent heat ageing properties retention.

ISO 1043: PA6-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
240 - 280°C

Mold Temperature
80 - 90°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



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PROPERTY	STANDARD	UNIT	VALUE		
			DAM*	Cond**	
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m³	1570	
Moulding shrinkage - Parallel / Normal	280/90/60 [1]	ISO 294-4	%	0.2 / 0.7	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	4.8	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.4	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	16400	11000
Stress at Break	5mm/min	ISO 527-2/1A	MPa	225	150
Strain at Break	5mm/min	ISO 527-2/1A	%	2.6	3.5
Flexural Modulus	2mm/min	ISO 178	MPa	15500	10000
Flexural Strength	2mm/min	ISO 178	MPa	360	240
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m²	98	105
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m²	90	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m²	17	
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m²	15	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C		220
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C		210
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C		215
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C		215
FLAMMABILITY PROPERTIES					
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
ELECTRICAL PROPERTIES					
Volume Resistivity	500V	IEC 62631-3-1	Ohm*m	1E13	1E11
Surface Resistivity	500V	IEC 62631-3-2	Ohm	1E12	1E10

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

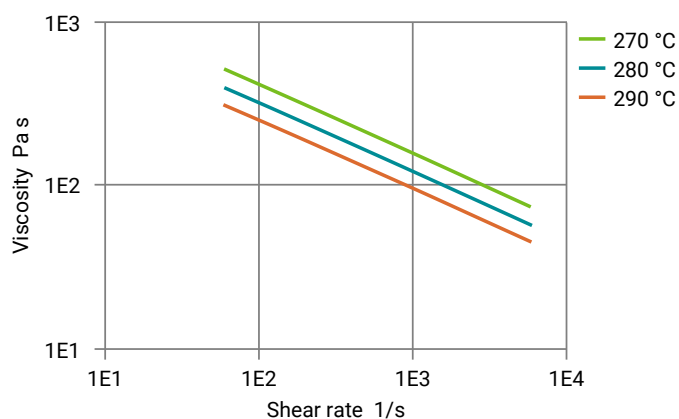
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



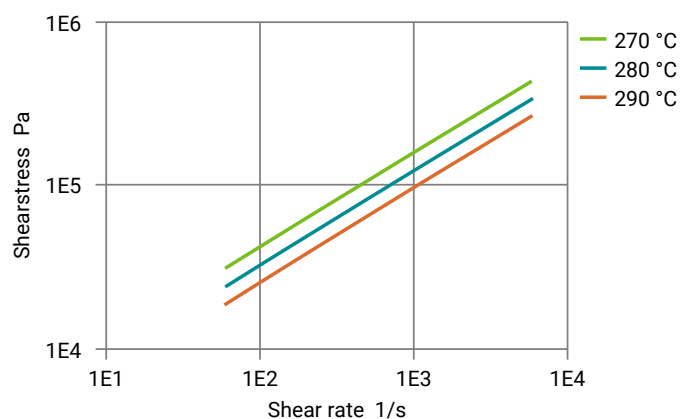
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DIAGRAMS

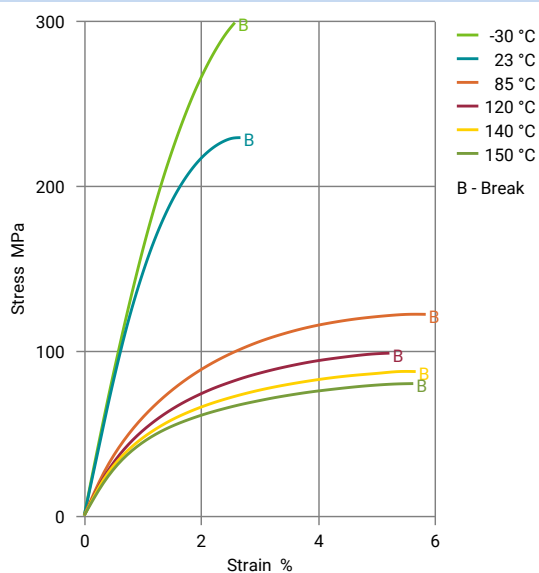
Viscosity-shear rate



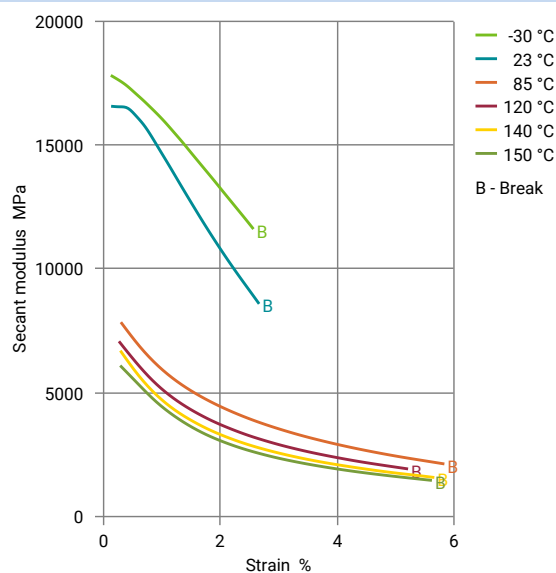
Shearstress-shear rate



Stress-strain (dry)



Secant modulus-strain (dry)



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Specific volume-temperature (pvT)

Tensile modulus-temperature (dry)

