

RADILON S RV350W 333 BK

DESCRIPTION

PA6 35% 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-GF35

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



RADILON S RV350W 333 BK

PROPERTY		STANDARD	UNIT	VALUE	
				DAM*	Cond**
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m³	1400	
Moulding shrinkage - Parallel / Normal	280/80/60 ^[1]	ISO 294-4	%		0.3 / 0.8
Water Absorption, immersion at 23°C	2mm	ISO 62	%		6.4
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%		1.8
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	10800	6900
Stress at Break	5mm/min	ISO 527-2/1A	MPa	180	115
Strain at Break	5mm/min	ISO 527-2/1A	%	3.1	7
Flexural Modulus	2mm/min	ISO 178	MPa	10300	6800
Flexural Strength	2mm/min	ISO 178	MPa	275	175
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m²	90	100
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m²	15	25
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m²	12	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C		220
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C		205
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C		215
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C		210
FLAMMABILITY PROPERTIES					
Flammability	0.8mm	UL 94	class		HB
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

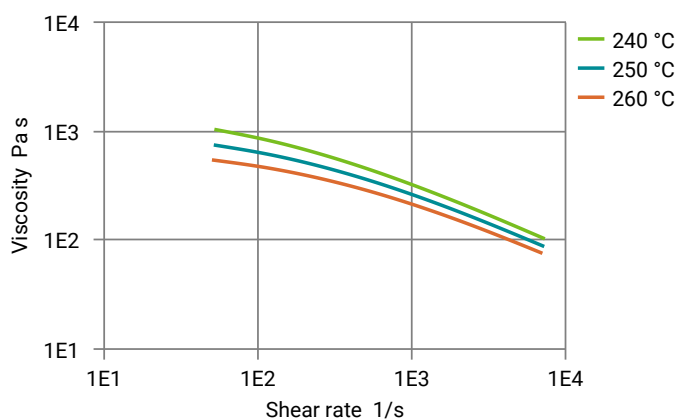
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



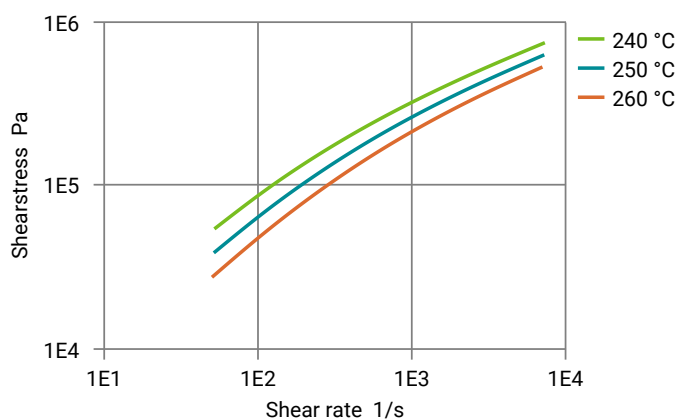
RADILON S RV350W 333 BK

DIAGRAMS

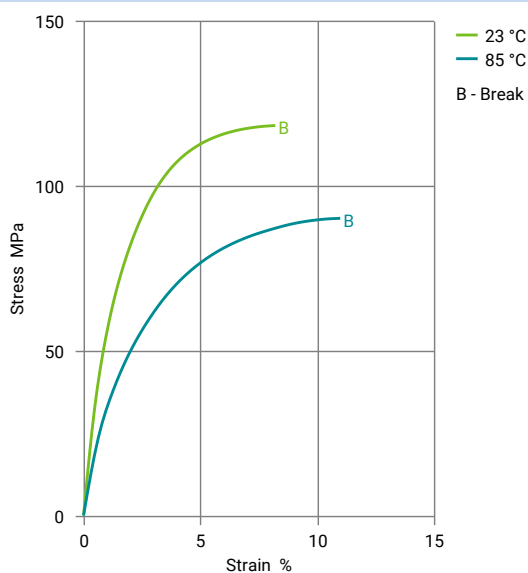
Viscosity-shear rate



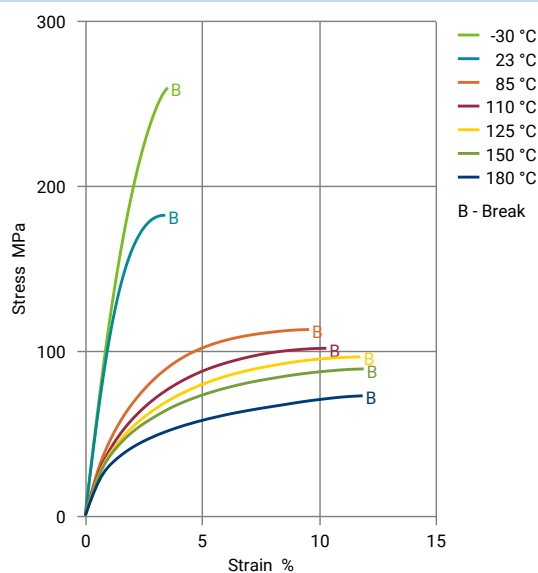
Shearstress-shear rate



Stress-strain (cond.)

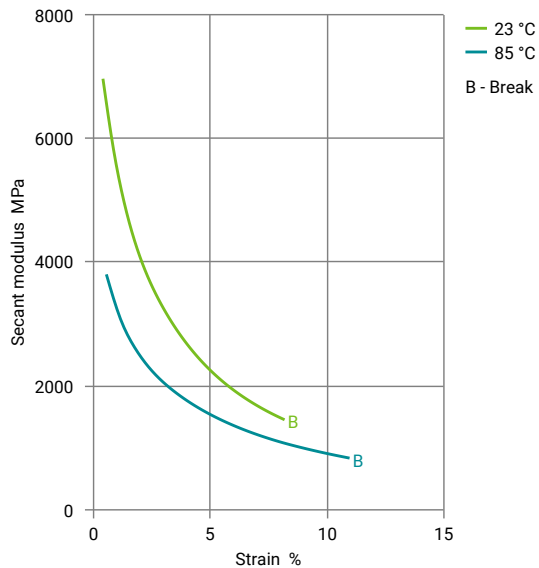


Stress-strain (dry)

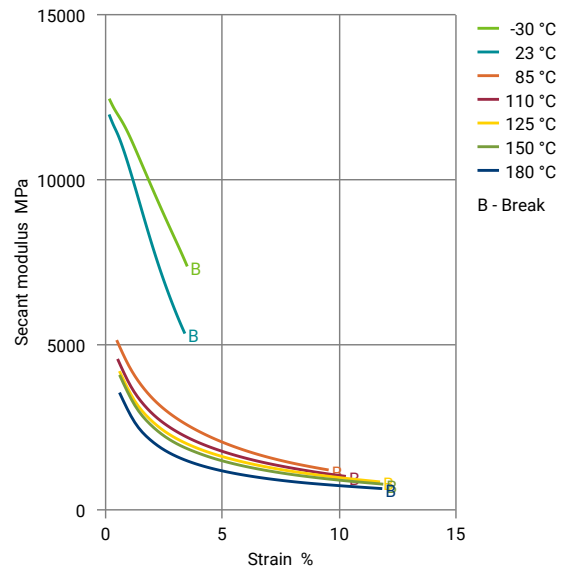


RADILON S RV350W 333 BK

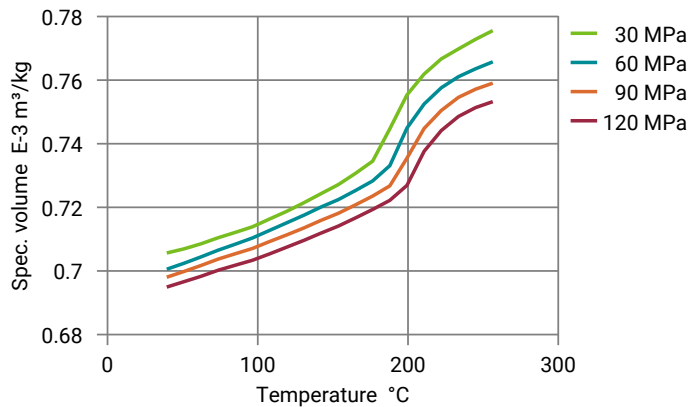
Secant modulus-strain (cond.)



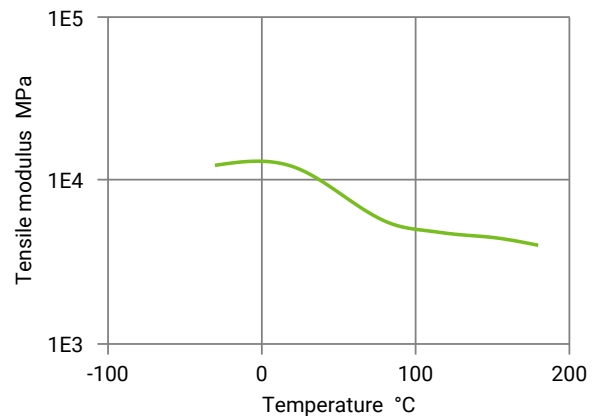
Secant modulus-strain (dry)



Specific volume-temperature (pvT)

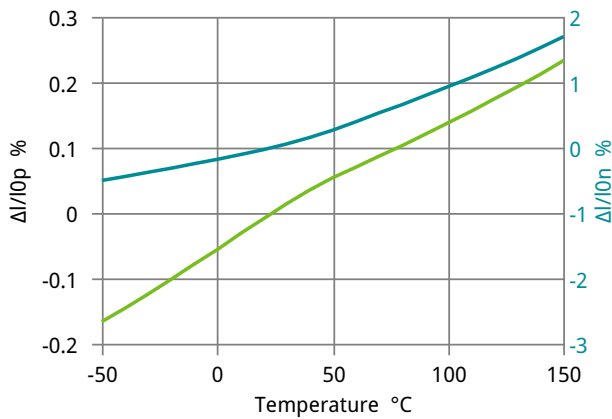


Tensile modulus-temperature (dry)

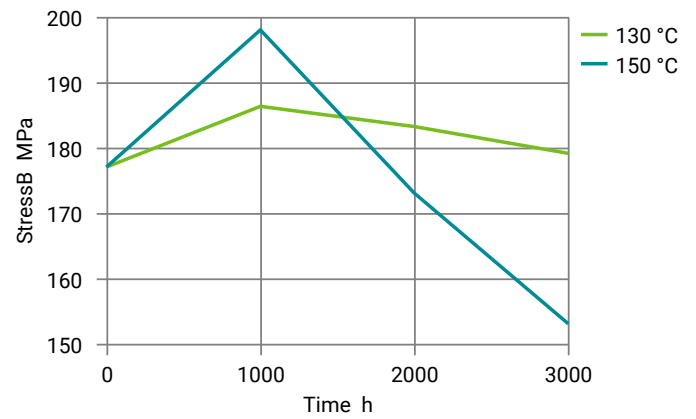


RADILON S RV350W 333 BK

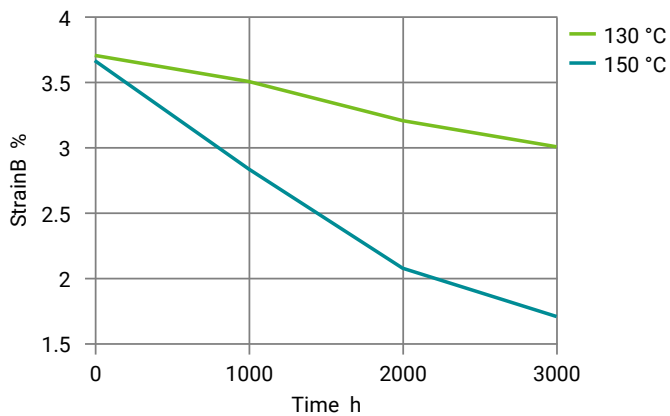
Thermal expansion



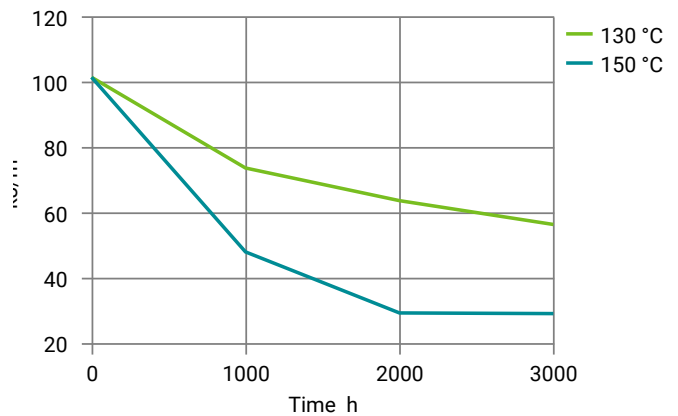
LTHA-Stress at Break 4mm (dry)



LTHA-Strain at Break 4mm (dry)



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



RADILON S RV350W 333 BK

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

