

RADILON A RV500RKC2 306 BK

DESCRIPTION

PA66 50% glass fibre reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring very high stiffness and mechanical resistance. Intended for prolonged contact with drinking water. Improved resistance to peroxides.

ISO 1043: PA66-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
280 - 300°C

Mold Temperature
80 - 100°C

Injection Speed
medium-high

PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Safety Data Sheet
ROHS compliant 2011/65/EU and successive amendments
Underwriters Laboratories Inc. certified materia www.ul.com

Suitable for materials and articles intended to come into contact directly or indirectly with food in compliance with EU 10/2011 and FDA Title 21CFR Chapter 1, part 177.1500.

Suitable and approved for drinking water contact.

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



RADILON A RV500RKC2 306 BK

PROPERTY	STANDARD	UNIT	VALUE		
			DAM*	Cond**	
PHYSICAL PROPERTIES					
Density		kg/m ³	1570		
Moulding shrinkage - Parallel / Normal	300/90/60 ^[1]	ISO 1183 ISO 294-4	%	0.2 / 0.7	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	4	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.1	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	16500	14000
Stress at Break	5mm/min	ISO 527-2/1A	MPa	220	175
Strain at Break	5mm/min	ISO 527-2/1A	%	2.4	3.4
Flexural Modulus	2mm/min	ISO 178	MPa	15300	12000
Flexural Strength	2mm/min	ISO 178	MPa	340	283
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	90	100
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m ²	15	20
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	260	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	250	
Heat Deflection Temperature	8.00 MPa	ISO 75/2Cf	°C	215	
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	255	
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

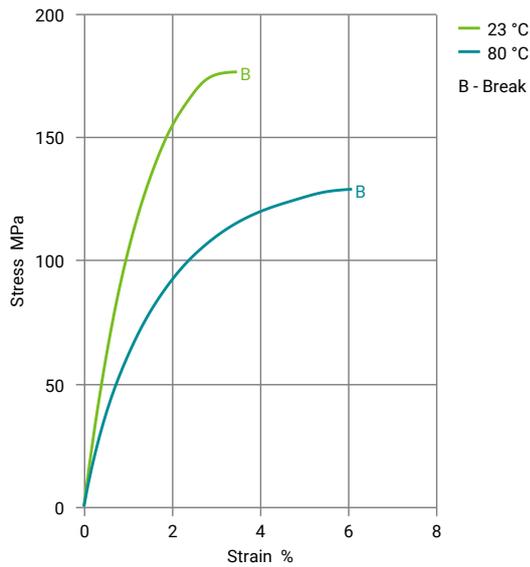
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



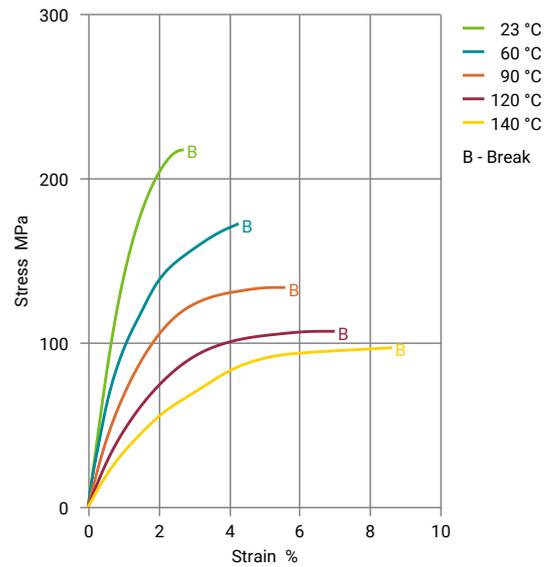
RADILON A RV500RKC2 306 BK

DIAGRAMS

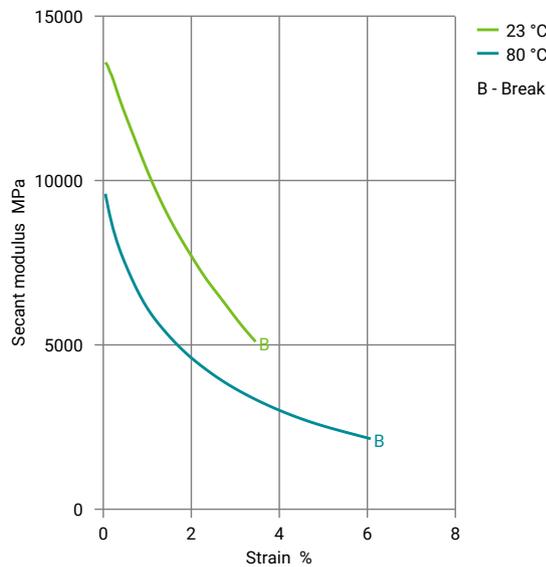
Stress-strain (cond.)



Stress-strain (dry)



Secant modulus-strain (cond.)



Secant modulus-strain (dry)

