

RADILON DT RV500RKC2 306 BK

DESCRIPTION

PA612, 50% glass fibre reinforced injection moulding grade. Heat stabilized, improved flowability. Black colour.

Suitable for parts requiring very high stiffness and high mechanical resistance in direct contact with drinking water and food. Excellent dimensional stability, improved hydrolytic stability and chemical resistance to disinfectants. Product developed for applications in civil and industrial water management as well as appliances.

ISO 1043: PA612-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 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
260 - 290°C

Mold Temperature
80 - 90°C

Injection Speed
medium

PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Safety Data Sheet

Underwriters Laboratories Inc. certified material www.ul.com

ROHS compliant 2011/65/EU and successive amendments

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.



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PROPERTY	STANDARD	UNIT	VALUE		
			DAM*	Cond**	
PHYSICAL PROPERTIES					
Density	ISO 1183	kg/m ³	1510		
Moulding shrinkage - Parallel / Normal	280/90/60 ^[1]	ISO 294-4	%	0.2 / 0.6	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	1.5	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	0.6	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	14900	13400
Stress at Break	5mm/min	ISO 527-2/1A	MPa	195	170
Strain at Break	5mm/min	ISO 527-2/1A	%	2.6	3.2
Flexural Modulus	2mm/min	ISO 178	MPa	13400	11900
Flexural Strength	2mm/min	ISO 178	MPa	290	265
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	85	95
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m ²	80	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m ²	15	17
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m ²	14	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	215	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	200	
Coeff. of Linear Therm. Expansion	parallel, 23°C-55°C	ISO 11359-1/-2	E-6/K	20	
Coeff. of Linear Therm. Expansion	normal, 23°C-55°C	ISO 11359-1/-2	E-6/K	87	
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

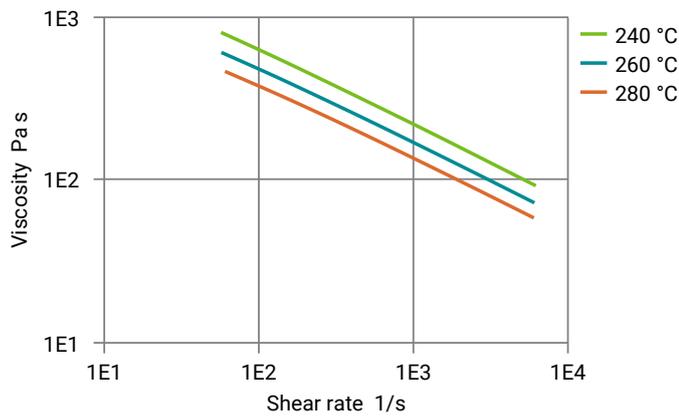
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



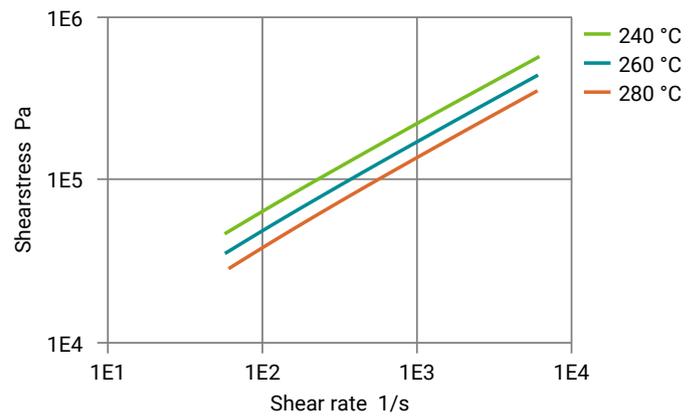
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DIAGRAMS

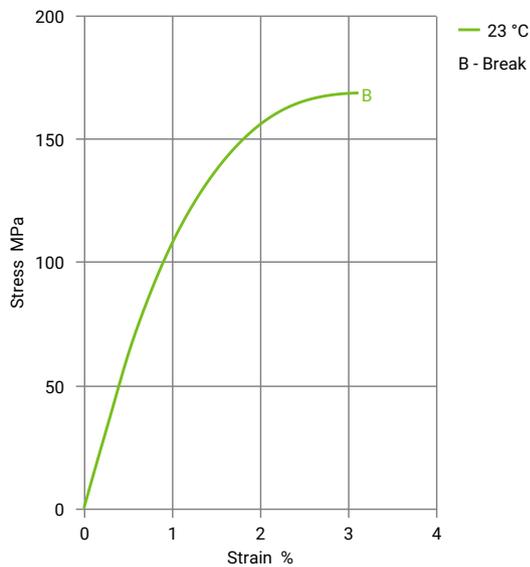
Viscosity-shear rate



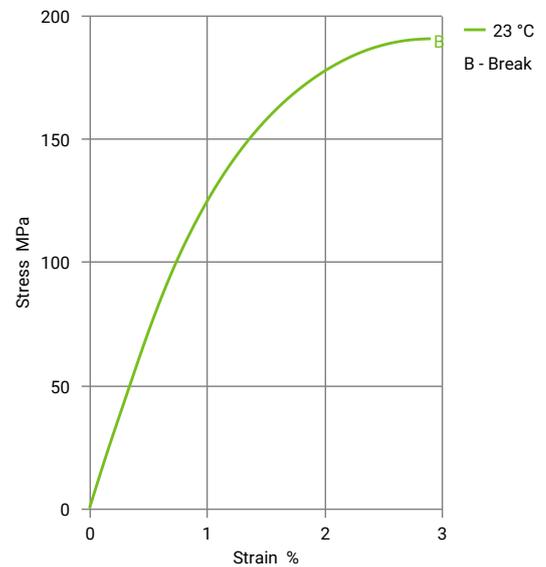
Shearstress-shear rate



Stress-strain (cond.)

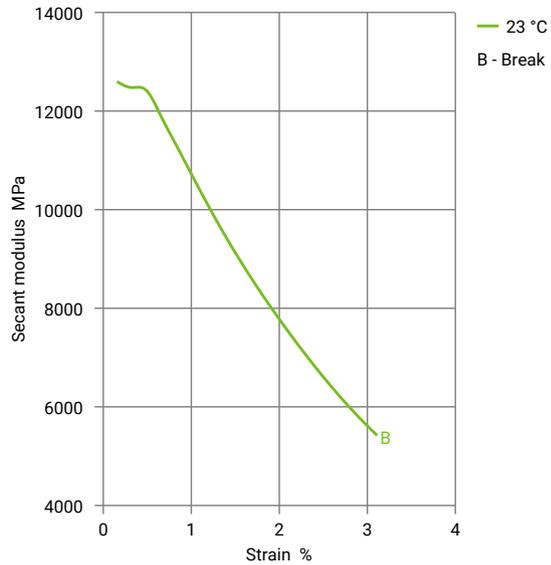


Stress-strain (dry)

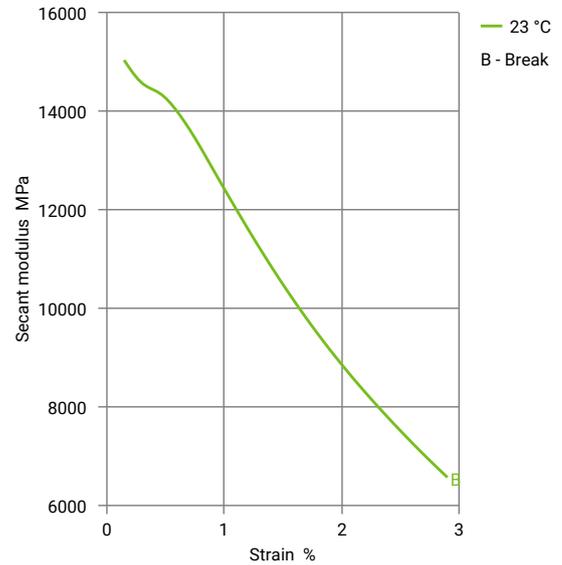


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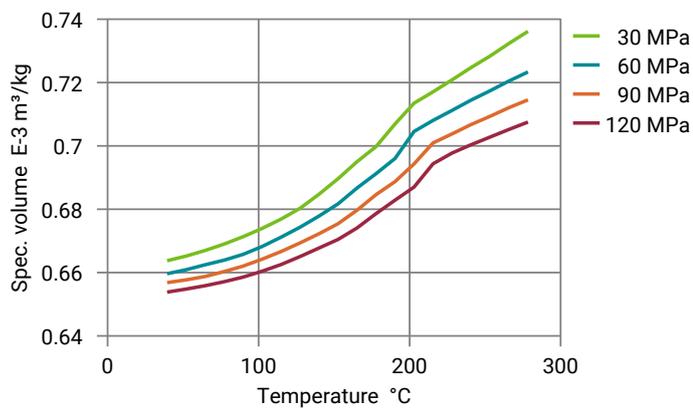
Secant modulus-strain (cond.)



Secant modulus-strain (dry)



Specific volume-temperature (pvT)



Thermal expansion

