

RADILON D RV300RG 3900 BK

DESCRIPTION

PA610 30% glass fibre reinforced injection moulding grade. Heat stabilized, very high hydrolysis resistance. Black colour.

Suitable for parts requiring good dimensional stability and mechanical resistance. Excellent retention of properties in contact with automotive cooling circuit liquids. This grade is partially renewably-sourced (64% of base polymer by weight).

ISO 1043: PA610-GF30

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
240 - 260°C

Mold Temperature
80 - 90°C

Injection Speed
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		kg/m ³	1310	
Moulding shrinkage - Parallel / Normal	280/80/60 ^[1]	%	0.4 / 0.8	
Water Absorption, immersion at 23°C	2mm	%	2.2	
Moisture Absorption 23°C - 50%RH	2mm	%	1	
MECHANICAL PROPERTIES				
Tensile Modulus	1mm/min	MPa	8500	6800
Stress at Break	5mm/min	MPa	150	120
Strain at Break	5mm/min	%	5	6
Flexural Modulus	2mm/min	MPa	7600	5900
Flexural Strength	2mm/min	MPa	240	190
Charpy Impact Strength	+23°C	kJ/m ²	100	105
Charpy Impact Strength	-30°C	kJ/m ²	105	
Charpy Notched Impact Strength	+23°C	kJ/m ²	15	17
Charpy Notched Impact Strength	-30°C	kJ/m ²	12	
THERMAL PROPERTIES				
Melting Temperature	10°C/min	°C	220	
Heat Deflection Temperature	1.80 MPa	°C	200	
FLAMMABILITY PROPERTIES				
Flammability	0.8mm	class	HB	
ELECTRICAL PROPERTIES				
Volume Resistivity	500V	Ohm*m	1E13	1E11
Surface Resistivity	500V	Ohm	1E12	1E10

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

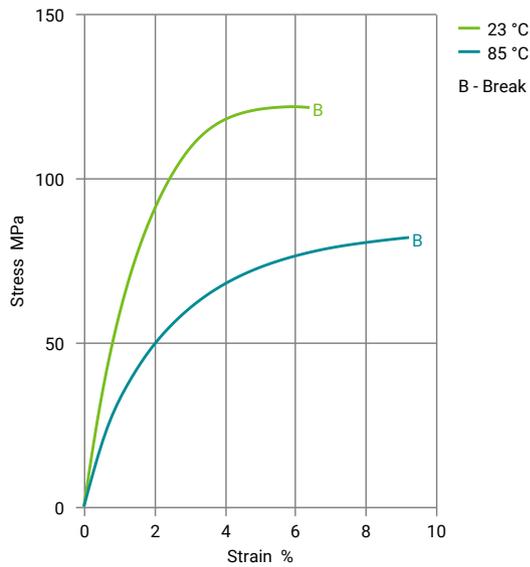
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



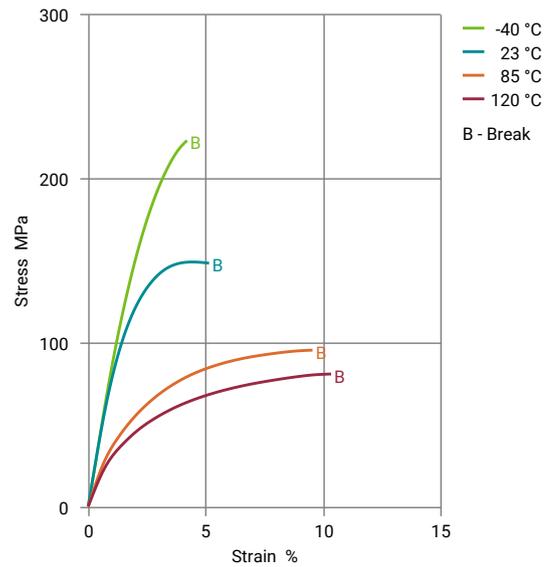
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DIAGRAMS

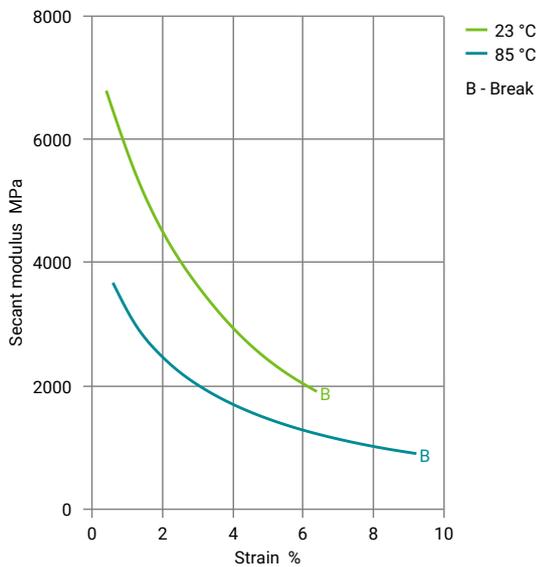
Stress-strain (cond.)



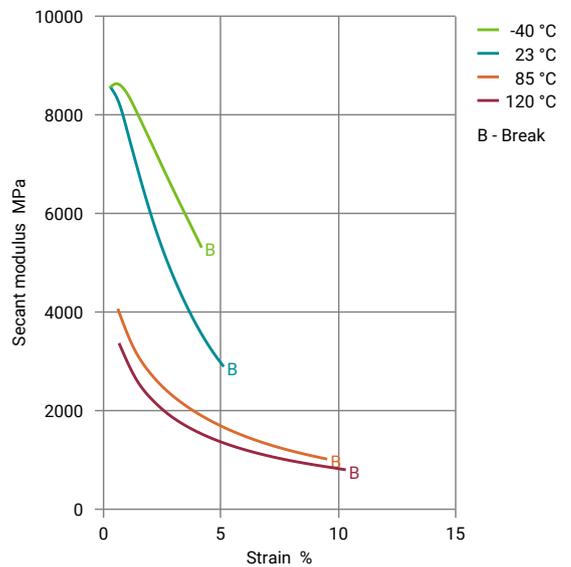
Stress-strain (dry)



Secant modulus-strain (cond.)



Secant modulus-strain (dry)



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Tensile modulus-temperature (cond.)

Tensile modulus-temperature (dry)

