

PRODUCT INFORMATION

RADILON S RCP3010LK 333 BK

DESCRIPTION

PA6 30% glass fiber and mineral filler reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts requiring improved stiffness and dimensional stability, reduced shrinkage and low warpage.

ISO 1043: PA6-T (GF+MX)30

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/UE and following amendments

TECHNICAL DATA SHEET

RADILON S RCP3010LK 333 BK

PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
PHYSICAL PROPERTIES				
Density		kg/m ³	1370	
Moulding shrinkage - Parallel / Normal	280 /80 /60 ^[1]	%	0.4 / 0.6	
Water Absorption, immersion at 23°C	2mm	%	7.5	
Moisture Absorption 23°C - 50%RH	2mm	%	2	
MECHANICAL PROPERTIES				
Tensile Modulus	1mm/min	MPa	7500	5000
Stress at Break	5mm/min	MPa	100	65
Strain at Break	5mm/min	%	2.9	10
Flexural Modulus	2mm/min	MPa	7000	
Flexural Strength	2mm/min	MPa	160	
Charpy Impact Strength	+23°C	kJ/m ²	42	50
Charpy Impact Strength	-30°C	kJ/m ²	40	
Charpy Notched Impact Strength	+23°C	kJ/m ²	5.5	7
Charpy Notched Impact Strength	-30°C	kJ/m ²	3.5	
THERMAL PROPERTIES				
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	220
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	190
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C	215
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	205
Coeff. of Linear Therm. Expansion	parallel, 23°C-55°C	ISO 11359-1/-2	E-6/K	31
Coeff. of Linear Therm. Expansion	normal, 23°C-55°C	ISO 11359-1/-2	E-6/K	104
FLAMMABILITY PROPERTIES				
Flammability	0.8mm	UL 94	class	HB
Glow Wire Flammability Index	2mm	IEC 60695-2-1/2	°C	700
Automotive Interior Flammability	3mm	ISO 3795	mm/min	0
ELECTRICAL PROPERTIES				
Volume Resistivity	500V	IEC 60093	Ohm*m	1E13 1E11
Surface Resistivity	500V	IEC 60093	Ohm	1E12 1E10
Comparative Tracking Index	Sol.A	IEC 60112	-	500

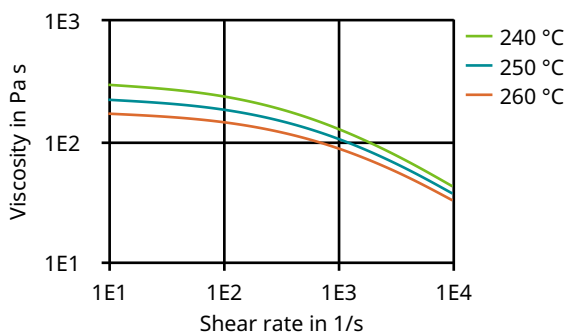
*: DAM = Dry As Moulded state according to ISO 16396-2 **: Cond = Conditioned state similar to ISO 1110 1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]

TECHNICAL DATA SHEET

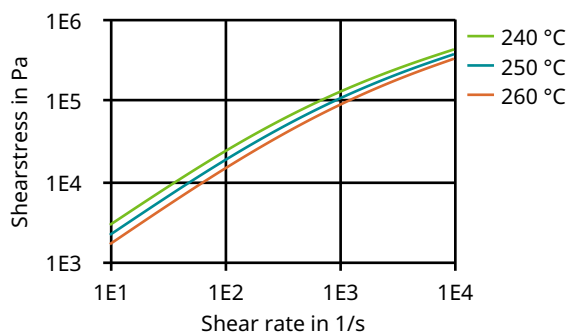
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Diagrams

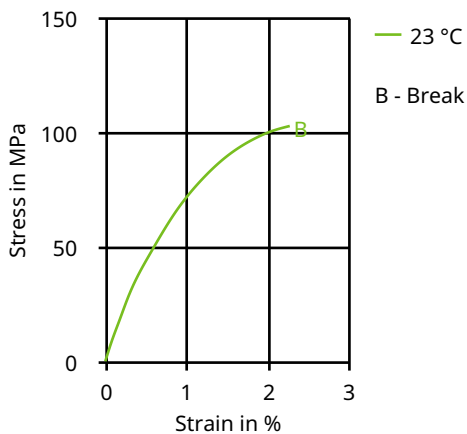
Viscosity-shear rate



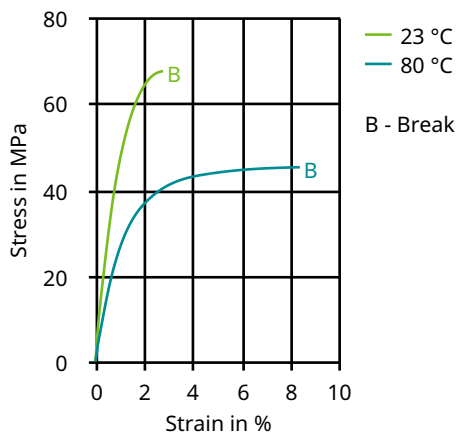
Shearstress-shear rate



Stress-strain (dry)



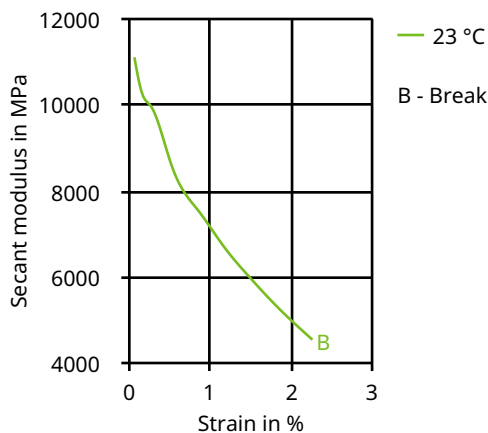
Stress-strain (cond.)



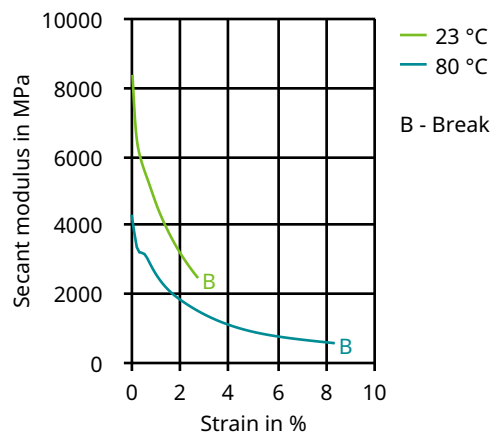
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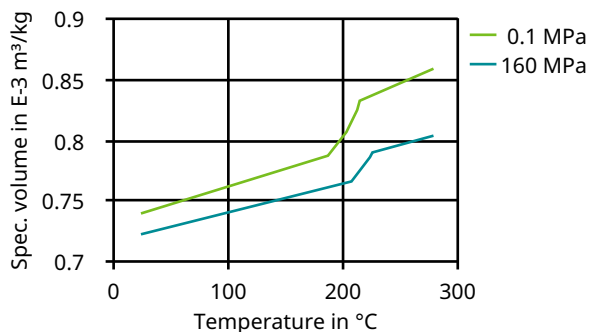
Secant modulus-strain (dry)



Secant modulus-strain (cond.)



Specific volume-temperature (pvT)



Coeff. of linear thermal expansion, parallel

