

# RADILON S RCW4015W 3733 BK

## DESCRIPTION

PA6 40% glass fibre and mineral reinforced injection moulding grade, heat stabilized. Black colour

Suitable for parts requiring high stiffness, good mechanical resistance and excellent heat ageing properties retention, good dimensional stability.

ISO 1043: PA6-(GF+MD)40

REGIONAL AVAILABILITY: North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Formerly Known As N60MG40HSL.XN1433BK and RADILON S RCW4015W 333XNBK

## 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. Avoid excessive shear rates and high thermal stresses for better processing. 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  
60 - 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



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PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
<b>PHYSICAL PROPERTIES</b>				
Density			1480	
Moulding shrinkage - Parallel / Normal	280/90/60 <sup>[1]</sup>	ISO 1183 ISO 294-4	kg/m <sup>3</sup> %	0.2 / 0.5
Viscosity Index (Sulfuric Acid)		ISO 307	ml/g	142
<b>MECHANICAL PROPERTIES</b>				
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	8800
Stress at Break	5mm/min	ISO 527-2/1A	MPa	120
Strain at Break	5mm/min	ISO 527-2/1A	%	2.4
Flexural Modulus	2mm/min	ISO 178	MPa	8600
Flexural Strength	2mm/min	ISO 178	MPa	190
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	50
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m <sup>2</sup>	40
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	6.5
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	4
Izod Notched Impact Strength	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	5.5
Izod Notched Impact Strength	-30°C	ISO 180/1A	kJ/m <sup>2</sup>	5
<b>THERMAL PROPERTIES</b>				
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	220
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	193
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C	200
<b>FLAMMABILITY PROPERTIES</b>				
Flammability	0.8mm	UL 94	class	HB
Automotive Interior Flammability	3mm	ISO 3795	mm/min	0
<b>ELECTRICAL PROPERTIES</b>				
Volume Resistivity	500V	IEC 62631-3-1	Ohm*m	1E13
Surface Resistivity	500V	IEC 62631-3-2	Ohm	1E12

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

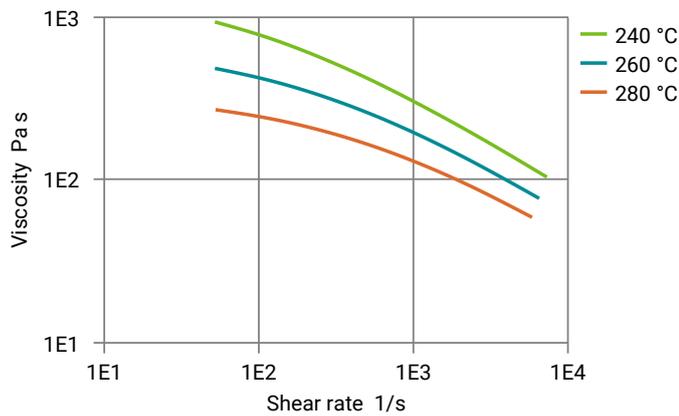
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



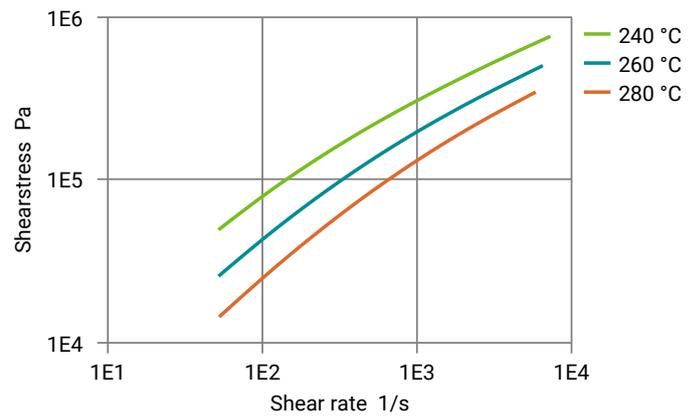
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## DIAGRAMS

### Viscosity-shear rate



### Shearstress-shear rate



### Specific volume-temperature (pvT)

