

RADILON S URV500W 333 BK

DESCRIPTION

PA6 50% glass fibre reinforced injection moulding grade. Heat stabilized, very high flowability. Black colour.

Suitable for parts requiring very high stiffness and high mechanical resistance, as in case of metal replacement applications.

ISO 1043: PA6-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
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/EU and following amendments



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PROPERTY	STANDARD	UNIT	VALUE		
			DAM*	Cond**	
PHYSICAL PROPERTIES					
Density			1560		
Moulding shrinkage - Parallel / Normal	280/90/60 ^[1]	ISO 1183 ISO 294-4	%	0.2 / 0.7	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	4.8	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.4	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	16500	
Stress at Break	5mm/min	ISO 527-2/1A	MPa	220	
Strain at Break	5mm/min	ISO 527-2/1A	%	2.4	
Flexural Modulus	2mm/min	ISO 178	MPa	15100	
Flexural Strength	2mm/min	ISO 178	MPa	335	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	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	18	
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m ²	12	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	220	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	205	
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

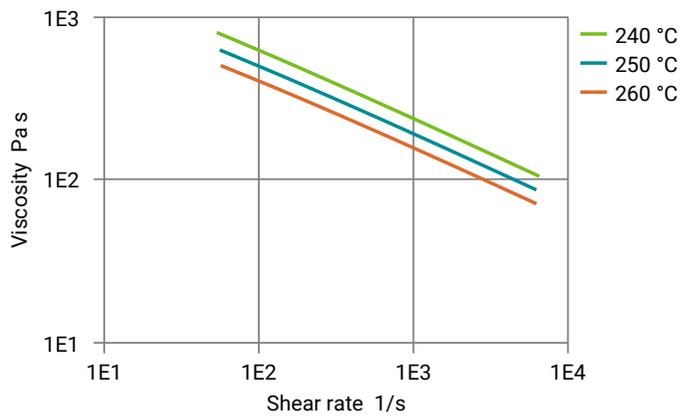
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



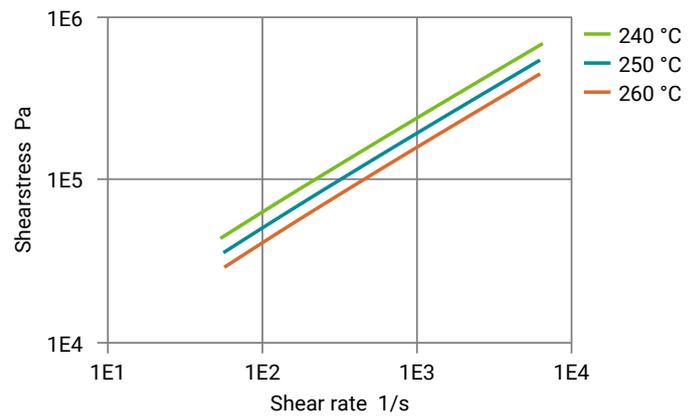
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DIAGRAMS

Viscosity-shear rate



Shearstress-shear rate



Specific volume-temperature (pvT)

