

RADILON S USX200 100 NT

DESCRIPTION

PA6 injection moulding grade. Toughened. Natural colour.

Suitable for parts requiring excellent impact resistance and high flexibility.

ISO 1043: PA6-HI

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
250 - 280°C

Mold Temperature
70 - 80°C

Injection Speed
medium

PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet
Underwriters Laboratories Inc. certified material www.ul.com
ROHS compliant 2011/65/EU and following amendments



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PROPERTY		STANDARD	UNIT	VALUE	
				DAM*	Cond**
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m³	1060	
Moulding shrinkage - Parallel / Normal	280/70/60 [1]	ISO 294-4	%	1.5 / 1.4	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	7.6	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	2	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	1600	600
Stress at Yield	50mm/min	ISO 527-2/1A	MPa	40	30
Yield Strain	50mm/min	ISO 527-2/1A	%	5	30
Nominal Strain at Break	50mm/min	ISO 527-2/1A	%	>100	>100
Flexural Modulus	2mm/min	ISO 178	MPa	1350	450
Flexural Strength	2mm/min	ISO 178	MPa	55	25
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m²	N	N
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m²	100	125
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m²	25	
Izod Notched Impact Strength	+23°C	ISO 180/1A	kJ/m²	95	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	220	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	50	
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C	135	
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	150	
FLAMMABILITY PROPERTIES					
Flammability	0.8mm	UL 94	class	HB	
Glow Wire Flammability Index	2mm	IEC 60695-2-12	°C	650	
Automotive Interior Flammability	3mm	ISO 3795	mm/min	<30	
ELECTRICAL PROPERTIES					
Volume Resistivity	500V	IEC 62631-3-1	Ohm*m	1E13	1E11
Surface Resistivity	500V	IEC 62631-3-2	Ohm	1E12	1E10
Comparative Tracking Index	Sol.A	IEC 60112	V	600	

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

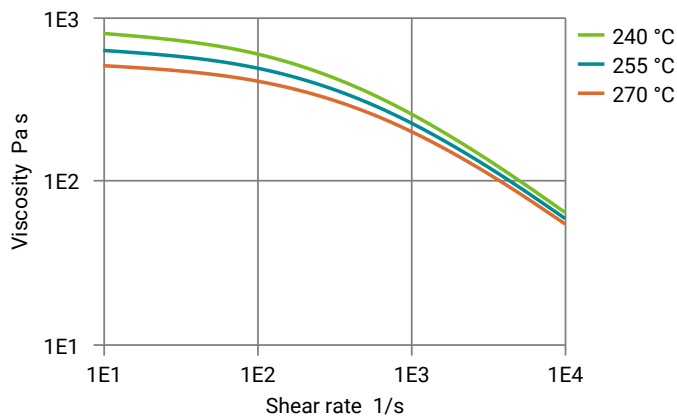
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



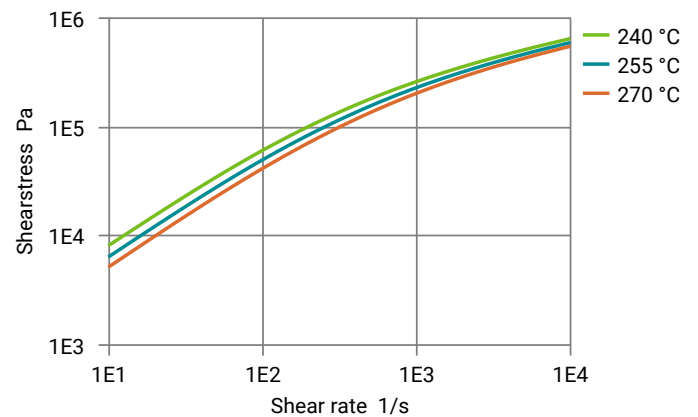
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DIAGRAMS

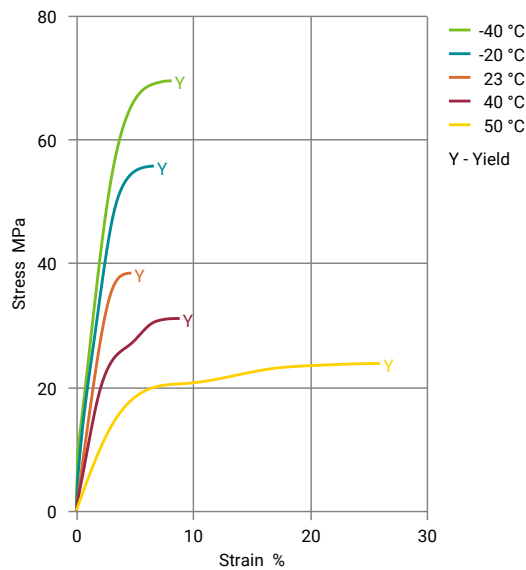
Viscosity-shear rate



Shearstress-shear rate



Stress-strain (dry)



Secant modulus-strain (dry)

