RADISTRONG A RV500W 333 BK

DESCRIPTION

Special PA 50% glass fibre reinforced, injection moulding grade. Heat stabilized. Black colour

Product with enhanced mechanical properties, suitable for demanding applications as in case of metal replacement.

ISO 1043: (PA66+PA*)-GF50

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

Formerly Known As RADISTRONG A X15120 BK

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	Mold Temperature	Injection Speed
280 - 300°C	90 - 120°C	medium-high

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*	VALUE Cond**
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m³	1590	
Moulding shrinkage - Parallel / Normal	290/120/60 [1]	ISO 294-4	%	0.1 / 0.4	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	3.8	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	0.9	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	17700	14600
Stress at Break	5mm/min	ISO 527-2/1A	MPa	250	190
Strain at Break	5mm/min	ISO 527-2/1A	%	2.3	3
Flexural Modulus	2mm/min	ISO 178	MPa	16500	13800
Flexural Strength	2mm/min	ISO 178	MPa	375	290
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m²	95	102
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m²	80	81
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m²	15	17
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m²	15	15
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	258	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	245	
Coeff. of Linear Therm. Expansion	parallel, 23°C-55°C	ISO 11359-1/-2	E-6/K	17	
Coeff. of Linear Therm. Expansion	normal, 23°C-55°C	ISO 11359-1/-2	E-6/K	68	
FLAMMABILITY PROPERTIES					
Flammability	0.8mm	UL 94	class	HB	
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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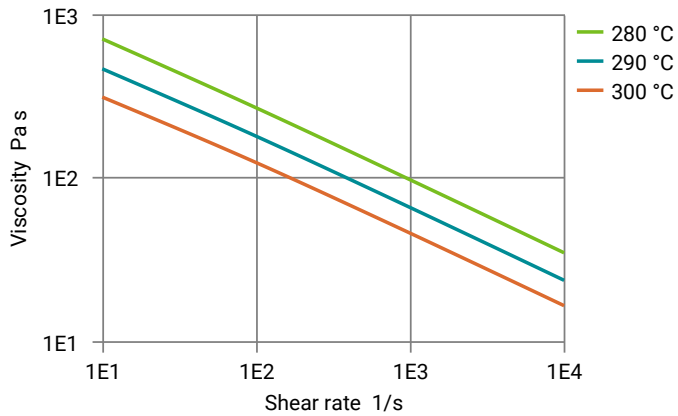
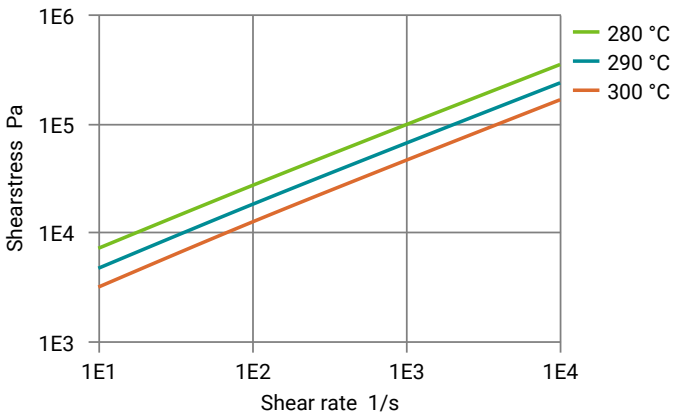
DIAGRAMS

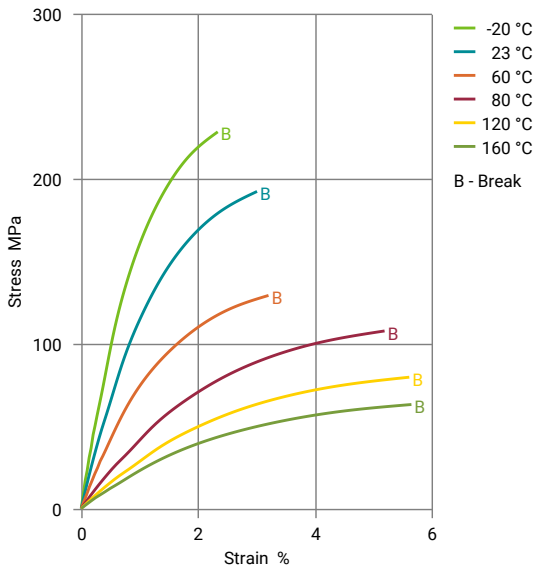
Viscosity-shear rate



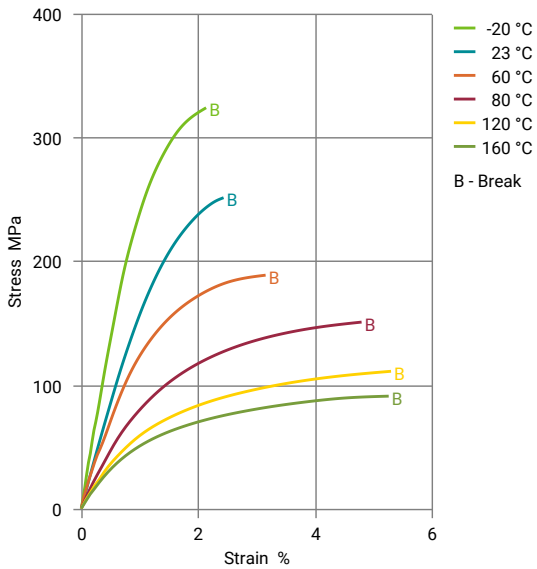
Shearstress-shear rate



Stress-strain (cond.)



Stress-strain (dry)



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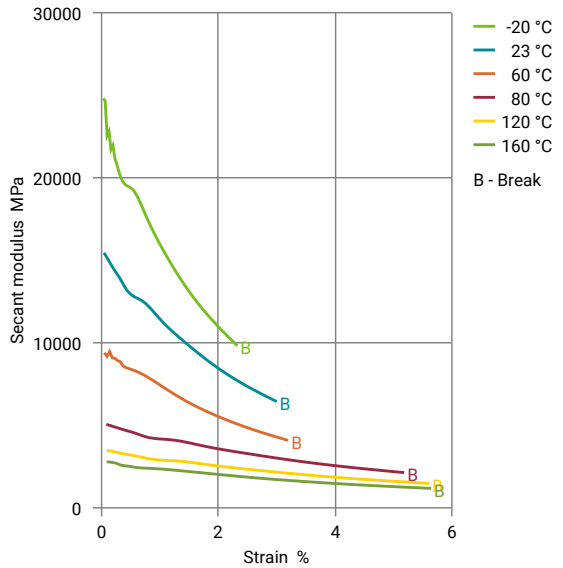
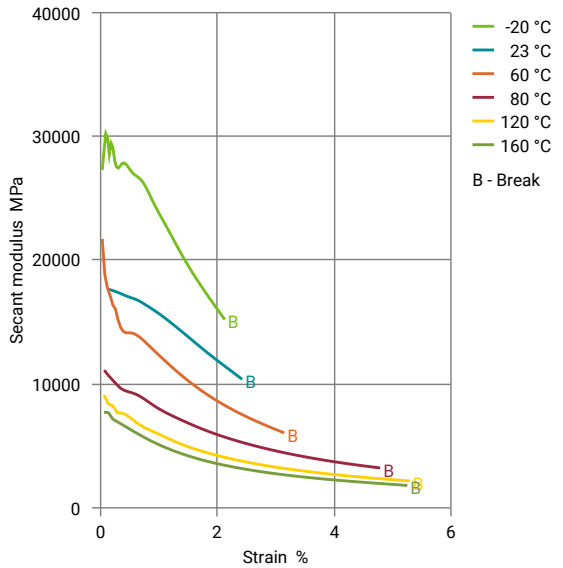
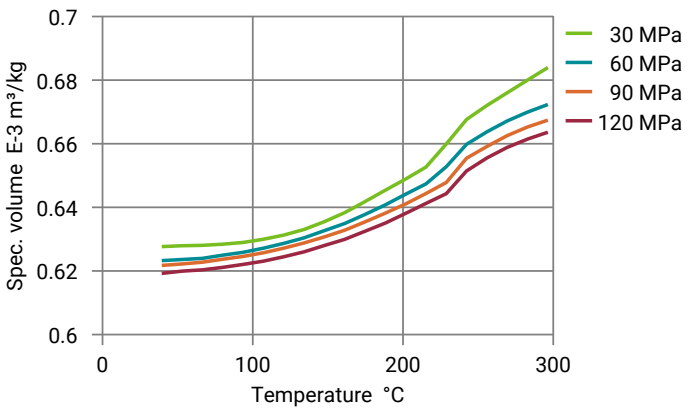
Secant modulus-strain (cond.)



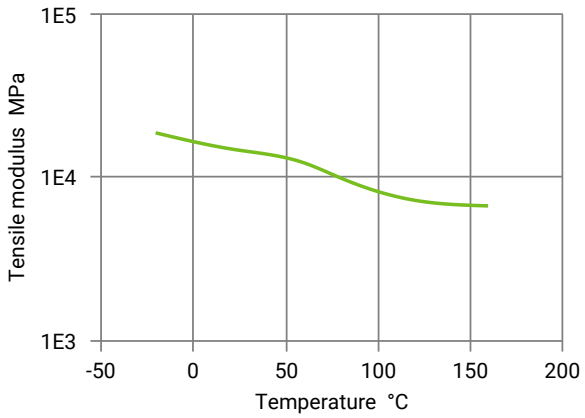
Secant modulus-strain (dry)



Specific volume-temperature (pvT)



Tensile modulus-temperature (cond.)



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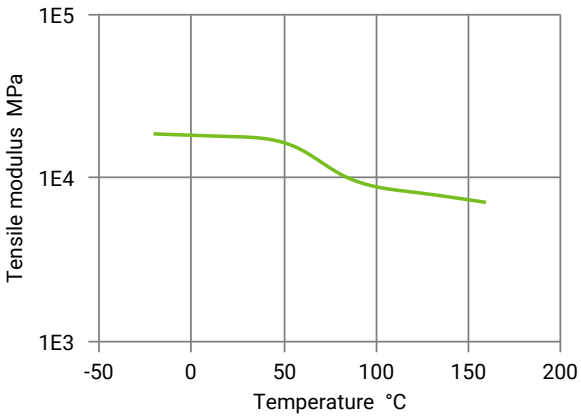
Tensile modulus-temperature (dry)



Thermal expansion