

RADIFLAM A RV250 AF 375 BK

DESCRIPTION

PA66 flame retardant injection moulding grade with red phosphorus. 25% glass fibre reinforced. Improved impact properties. Black colour.

Suitable for parts requiring fire retardancy along with medium stiffness and good mechanical resistance. Rated V-0 at 0.75 mm according to UL-94.

ISO 1043: PA66-GF25 FR(52+72)

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 0.10%. 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. It is recommended not to store molded parts made by this material in moist and warm environments.

Injection Molding Processing Parameters

Melt Temperature
280 - 300°C

Mold Temperature
80 - 100°C

Injection Speed
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*	Cond**
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m³	1370	
Moulding shrinkage - Parallel / Normal	280/80/60 [1]	ISO 294-4	%	0.3 / 0.8	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	5.5	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.2	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	7800	5200
Stress at Break	5mm/min	ISO 527-2/1A	MPa	120	90
Strain at Break	5mm/min	ISO 527-2/1A	%	3.1	3.5
Flexural Modulus	2mm/min	ISO 178	MPa	7000	
Flexural Strength	2mm/min	ISO 178	MPa	180	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m²	65	70
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m²	60	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m²	12	16
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m²	9	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	260	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	230	
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	240	
Coeff. of Linear Therm. Expansion	parallel, 23°C-55°C	ISO 11359-1/-2	E-6/K	30	
Coeff. of Linear Therm. Expansion	normal, 23°C-55°C	ISO 11359-1/-2	E-6/K	70	
FLAMMABILITY PROPERTIES					
Flammability	0.8mm	UL 94	class	V-0	
Flammability	1.5mm	UL 94	class	5VA	
Glow Wire Flammability Index	1mm	IEC 60695-2-12	°C	960	
Glow Wire Flammability Index	2mm	IEC 60695-2-12	°C	960	
Glow Wire Ignition Temperature	1mm	IEC 60695-2-13	°C	725	
Glow Wire Ignition Temperature	2mm	IEC 60695-2-13	°C	750	
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
Comparative Tracking Index	Sol.A	IEC 60112	V	400	

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

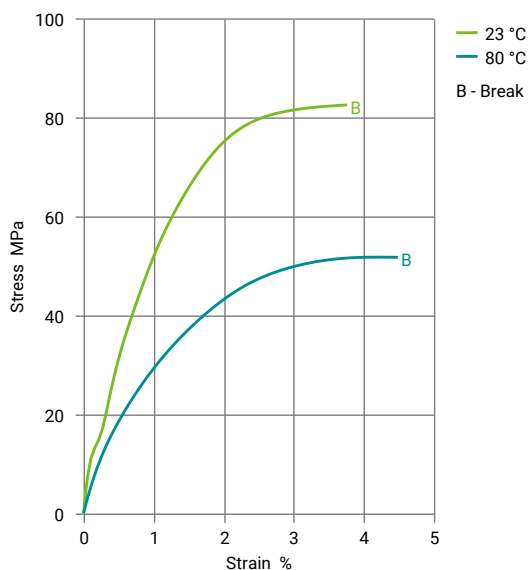
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



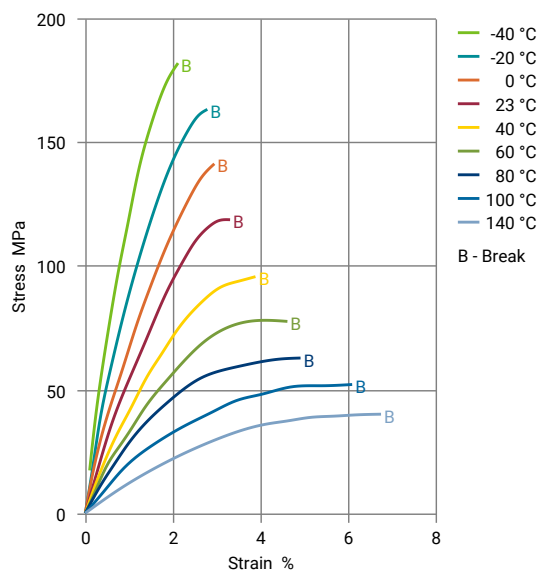
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DIAGRAMS

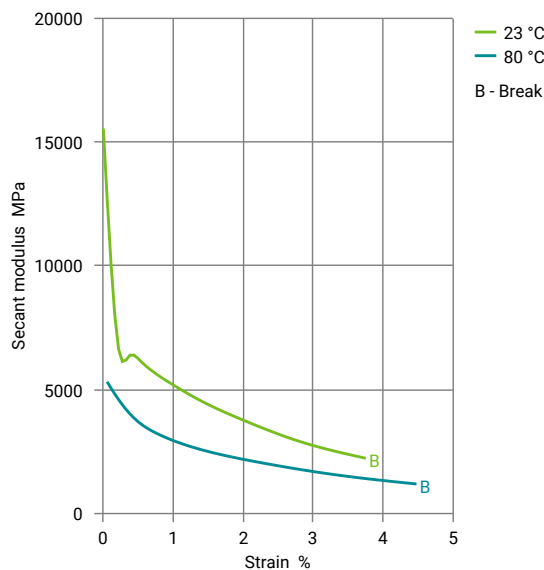
Stress-strain (cond.)



Stress-strain (dry)



Secant modulus-strain (cond.)



Secant modulus-strain (dry)

