

# RADIFLAM A RV500 AF 821 BR

## DESCRIPTION

PA66 flame retardant injection moulding grade with red phosphorus. 50% glass fibre reinforced. Natural red brick colour.

Suitable for parts requiring fire retardancy along with high stiffness and mechanical resistance. Rated V-0 at 0.8 mm according to UL-94. Improved Glow Wire behaviour (GWIT). Typically employed for domestic appliances.

ISO 1043: PA66-GF50 FR(52)

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  
ROHS compliant 2011/65/EU and following amendments



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PROPERTY	STANDARD	UNIT	VALUE		
			DAM*	Cond**	
<b>PHYSICAL PROPERTIES</b>					
Density		kg/m <sup>3</sup>	1620		
Moulding shrinkage - Parallel / Normal	280/80/60 <sup>[1]</sup>	ISO 1183 ISO 294-4	%	0.2 / 0.5	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	4	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1	
<b>MECHANICAL PROPERTIES</b>					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	17600	
Stress at Break	5mm/min	ISO 527-2/1A	MPa	240	
Strain at Break	5mm/min	ISO 527-2/1A	%	2.7	
Flexural Modulus	2mm/min	ISO 178	MPa	16100	
Flexural Strength	2mm/min	ISO 178	MPa	375	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	95	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	16	
<b>THERMAL PROPERTIES</b>					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	260	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	255	
<b>FLAMMABILITY PROPERTIES</b>					
Flammability	0.8mm	UL 94	class	V-0	
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	775	
Glow Wire Ignition Temperature	2mm	IEC 60695-2-13	°C	775	
Automotive Interior Flammability	3mm	ISO 3795	mm/min	0	
<b>ELECTRICAL PROPERTIES</b>					
Volume Resistivity	500V	IEC 62631-3-1	Ohm*m	1E13	1E11
Surface Resistivity	500V	IEC 62631-3-2	Ohm	1E12	1E10
Comparative Tracking Index	SoI.A	IEC 60112	V	600	

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

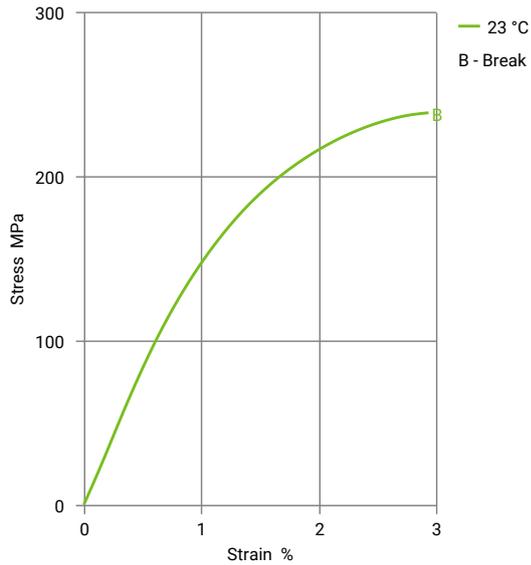
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



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## DIAGRAMS

### Stress-strain (dry)



### Secant modulus-strain (dry)

