

# RADIFLAM S RV250 HF 3010 BK

## DESCRIPTION

PA6 flame retardant injection moulding grade, halogen and red phosphorus free. 25% glass fibre reinforced. Heat and UV stabilized. Black colour.

Suitable for parts requiring fire retardancy along with medium stiffness and good mechanical resistance. Good electrical insulating properties and improved UV resistance. Rated V-0 according to UL-94.

ISO 1043: PA6-GF25 FR(40)

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.

### Injection Molding Processing Parameters

Melt Temperature  
260 - 290°C

Mold Temperature  
80 - 100°C

Injection Speed  
medium-high



# RADIFLAM S RV250 HF 3010 BK

PROPERTY	STANDARD	UNIT	VALUE		
			DAM*	Cond**	
<b>PHYSICAL PROPERTIES</b>					
Density	ISO 1183	kg/m <sup>3</sup>	1370		
Moulding shrinkage - Parallel / Normal	270/80/60 <sup>[1]</sup>	ISO 294-4	%	0.3 / 0.6	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	5	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.6	
<b>MECHANICAL PROPERTIES</b>					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	9200	6600
Stress at Break	5mm/min	ISO 527-2/1A	MPa	130	85
Strain at Break	5mm/min	ISO 527-2/1A	%	2.6	5
Flexural Modulus	2mm/min	ISO 178	MPa	8900	
Flexural Strength	2mm/min	ISO 178	MPa	200	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	56	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	9	
<b>THERMAL PROPERTIES</b>					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	220	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	195	
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	210	
<b>FLAMMABILITY PROPERTIES</b>					
Flammability	0.4mm	UL 94	class	V-0	
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	725	
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	550	

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

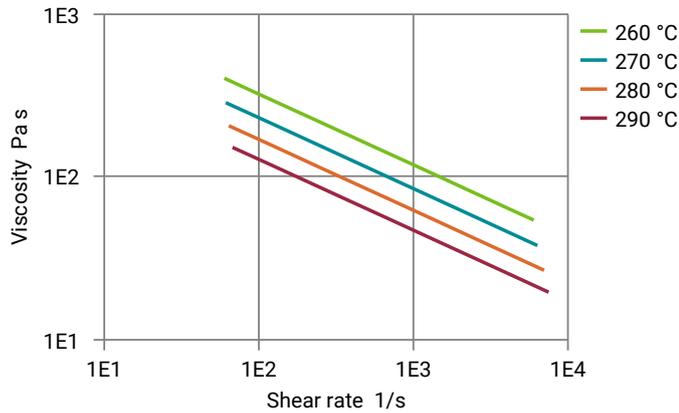
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



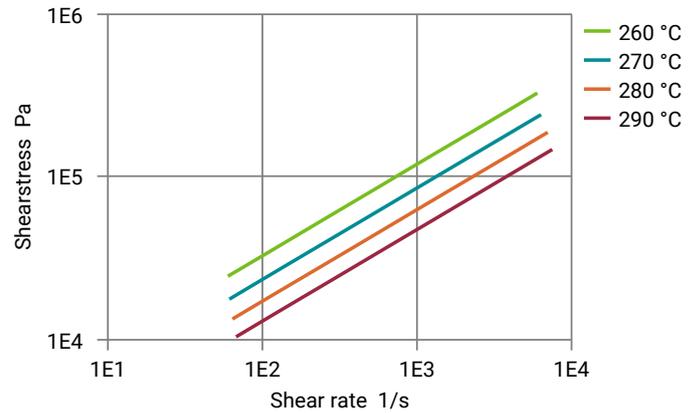
# RADIFLAM S RV250 HF 3010 BK

## DIAGRAMS

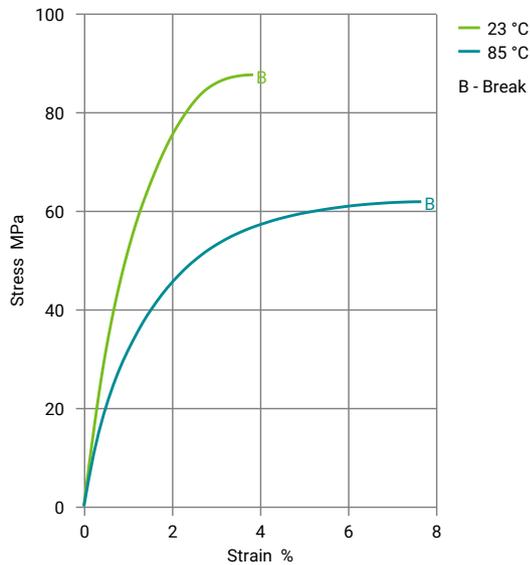
### Viscosity-shear rate



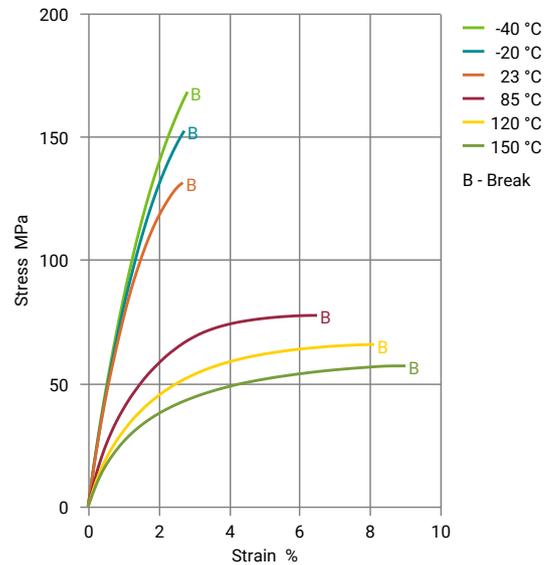
### Shearstress-shear rate



### Stress-strain (cond.)

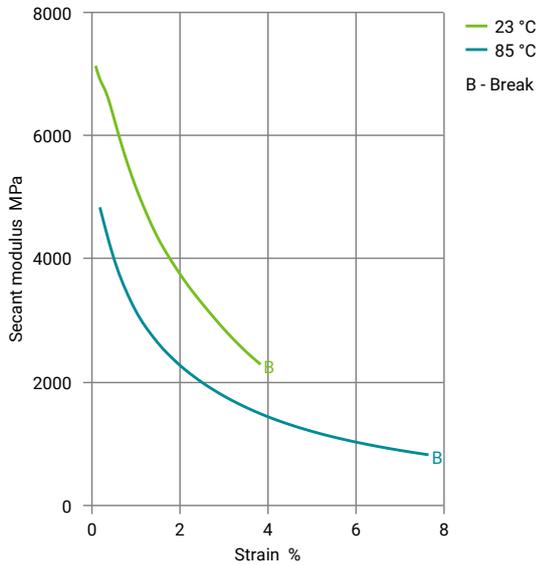


### Stress-strain (dry)

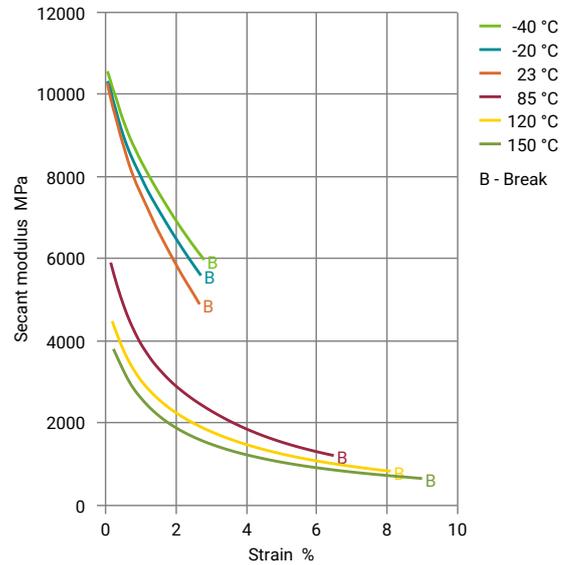


# RADIFLAM S RV250 HF 3010 BK

Secant modulus-strain (cond.)



Secant modulus-strain (dry)



Specific volume-temperature (pvT)

