

RADIFLAM S RV100 FR 322 BK

DESCRIPTION

PA6 flame retardant injection moulding grade, halogen and phosphorus free. Glass Fibre reinforced. Black colour.

Environmentally friendly flame retardant grade with low toxicity and minimum smoke density during combustion. Rated V-0 according to UL-94. Improved thermal conductivity.

ISO 1043: PA6-GF10 FR(61+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 0.15%. 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
280 - 300°C

Mold Temperature
80 - 90°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		kg/m ³	1720		
Moulding shrinkage - Parallel / Normal	280/90/30 ^[1]	%	0.4 / 0.7		
Water Absorption, immersion at 23°C	2mm	%	2.8		
Moisture Absorption 23°C - 50%RH	2mm	%	1.4		
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	12700	7500
Stress at Break	5mm/min	ISO 527-2/1A	MPa	115	85
Strain at Break	5mm/min	ISO 527-2/1A	%	1.7	2.5
Flexural Modulus	2mm/min	ISO 178	MPa	12600	7200
Flexural Strength	2mm/min	ISO 178	MPa	185	125
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	28	35
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m ²	20	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m ²	4	5
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m ²	3.5	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	220	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	200	
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C	217	
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	212	
Thermal Conductivity	23°C, inplane	-	W/(m K)	1	
FLAMMABILITY PROPERTIES					
Flammability	1.6mm	UL 94	class	V-0	
Flammability	0.8mm	UL 94	class	V-2	
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	725	
Automotive Interior Flammability	3mm	ISO 3795	mm/min	0	
Limiting Oxygen Index	23°C	ISO 4589-2	%	58	
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

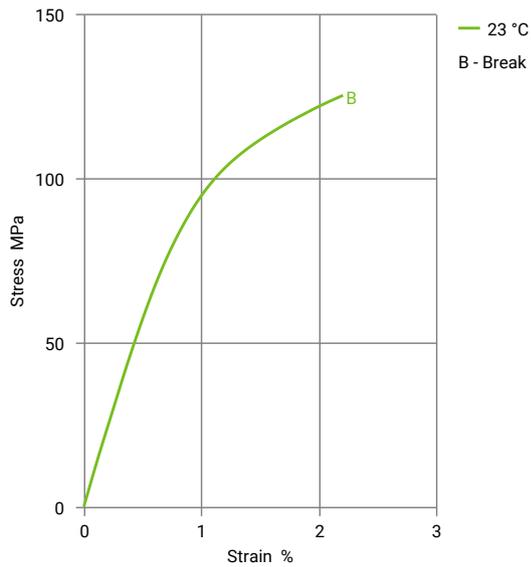
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



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DIAGRAMS

Stress-strain (dry)



Secant modulus-strain (dry)

