

RADIFLAM S RV300 HFL 5138 OR

PROVISIONAL

DESCRIPTION

PA6 flame retardant injection moulding grade, halogen and red phosphorus free. 30% glass fibre reinforced. Orange colour (comparable to RAL 2003) stable at high temperature.

Suitable for parts requiring fire retardancy along with high stiffness and good mechanical resistance. Good electrical insulating properties. Laser markable grade. Rated V-0 according to UL-94.

ISO 1043: PA6-GF30 FR(40)

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

THE CHARACTERISTICS SHOWN HERE ARE PROVISIONAL AND REFLECT THE AVERAGE VALUES OF PROPERTIES MEASURED OVER A LIMITED NUMBER OF PRODUCTION CAMPAIGNS

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
250 - 280°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**	
PHYSICAL PROPERTIES					
Density	ISO 1183	kg/m ³	1460		
Moulding shrinkage - Parallel / Normal	270/80/60 ^[1]	ISO 294-4	%	0.2 / 0.6	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	4.9	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.6	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	11200	
Stress at Break	5mm/min	ISO 527-2/1A	MPa	115	
Strain at Break	5mm/min	ISO 527-2/1A	%	2	
Flexural Modulus	2mm/min	ISO 178	MPa	11300	
Flexural Strength	2mm/min	ISO 178	MPa	180	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	40	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m ²	7	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	220	
FLAMMABILITY PROPERTIES					
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	
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

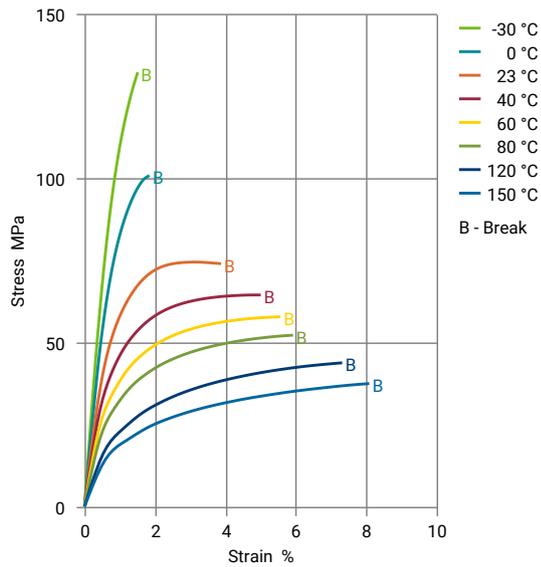
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



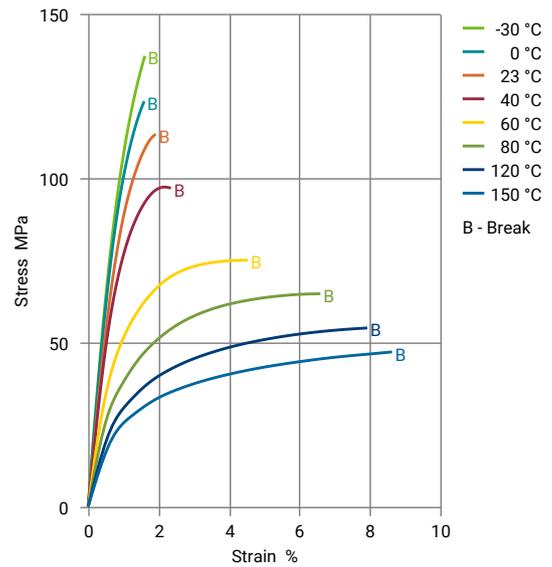
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DIAGRAMS

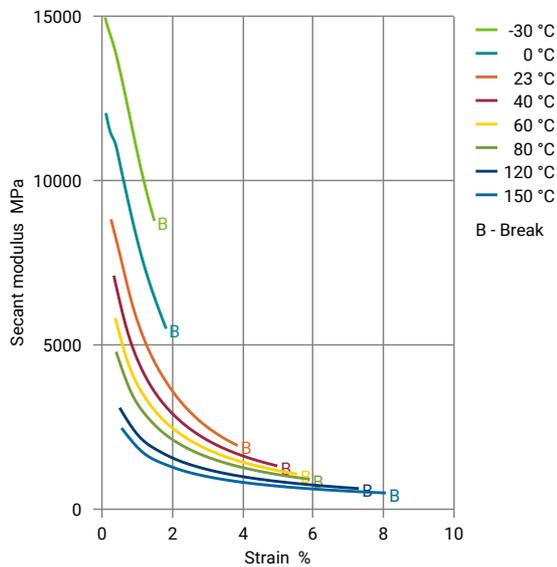
Stress-strain (cond.)



Stress-strain (dry)



Secant modulus-strain (cond.)



Secant modulus-strain (dry)

