RADIFLAM A FR 122 NT

DESCRIPTION

PA66 flame retardant injection moulding grade. Halogen and phosphorus free. High flowability. Natural colour.

Suitable for parts where fire retardancy is required, particularly for thin-walled items or with long flow paths. Rated V-0 at 0.4 mm according to UL-94.

ISO 1043: PA66 FR(30)

REGIONAL AVAILABILITY: Asia Pacific

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	Mold Temperature	Injection Speed
270 - 290°C	60 - 80°C	medium

Extrusion Temperature
270 - 290°C

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*	VALUE Cond**
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m³	1180	
Melt Flow Rate	290/2.16 [1]	ISO 1133	g/10min	140	
Moulding shrinkage - Parallel / Normal	280/70/60 [2]	ISO 294-4	%	1.1 / 1.1	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	7.7	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.8	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	3700	2600
Stress at Yield	50mm/min	ISO 527-2/1A	MPa	90	60
Yield Strain	50mm/min	ISO 527-2/1A	%	4	3.5
Nominal Strain at Break	50mm/min	ISO 527-2/1A	%	5.5	>50
Flexural Modulus	2mm/min	ISO 178	MPa	3400	
Flexural Strength	2mm/min	ISO 178	MPa	120	
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m²	3.5	
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	260	
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	80	
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C	200	
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	220	
FLAMMABILITY PROPERTIES					
Flammability	0.8mm	UL 94	class	V-0	
Flammability	0.4mm	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	>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
Electric Strength		IEC 60243-1	kV/mm	31	26
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: Temperature [°C] / Load [kg]

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

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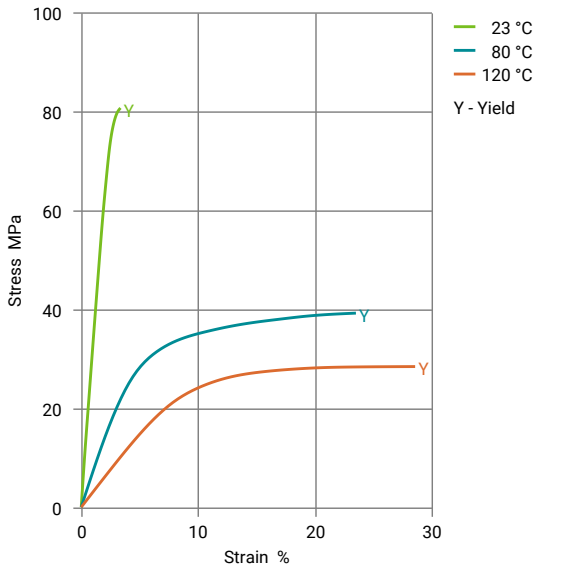
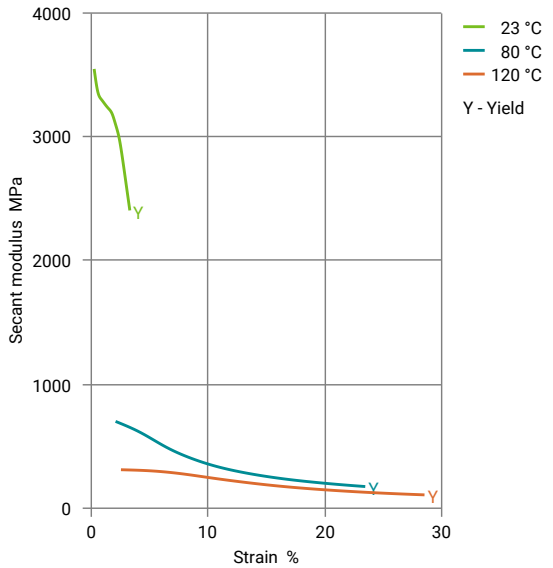
DIAGRAMS

Stress-strain (dry)



Secant modulus-strain (dry)



Specific volume-temperature (pvT)