

PRODUCT INFORMATION

RADIFLAM S FR 137 NAT

DESCRIPTION

PA6 flame retardant injection moulding grade. Halogen and phosphorus free. Natural colour.

Suitable for parts where fire retardancy is required. Rated V-0 at 0.4 mm according to UL-94.

ISO 1043: PA6 FR(30)

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
240 - 280°C

Mold Temperature
70 - 80°C

Injection Speed
medium

PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet

Underwriters Laboratories Inc. certified material. File number: E116324 www.ul.com

ROHS compliant 2011/65/UE and following amendments

TECHNICAL DATA SHEET

RADIFLAM S FR 137 NAT

PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
PHYSICAL PROPERTIES				
Density	ISO 1183	kg/m ³	1170	
Moulding shrinkage - Parallel / Normal	270 /70 /60 ^[1]	ISO 294-4	%	1.0 / 1.0
Water Absorption, immersion at 23°C	2mm	ISO 62	%	8
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	2
MECHANICAL PROPERTIES				
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	3500 2450
Stress at Yield	50mm/min	ISO 527-2/1A	MPa	75 45
Yield Strain		ISO 527-2/1A	%	3 20
Nominal Strain at Break	50mm/min	ISO 527-2/1A	%	15 >50
Flexural Modulus	2mm/min	ISO 178	MPa	3300
Flexural Strength	2mm/min	ISO 178	MPa	110
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m ²	4.5 11
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	55
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C	160
Vicat Softening Temperature	50°C/h 50N	ISO 306	°C	200
FLAMMABILITY PROPERTIES				
Flammability	0.8mm	UL 94	class	V-0
Flammability	0.4mm	UL 94	class	V-0
Glow Wire Flammability Index	1mm	IEC 60695-2-1/2	°C	960
Glow Wire Flammability Index	2mm	IEC 60695-2-1/2	°C	960
Glow Wire Ignition Temperature	1mm	IEC 60695-2-1/3	°C	800
Glow Wire Ignition Temperature	2mm	IEC 60695-2-1/3	°C	800
Automotive Interior Flammability	3mm	ISO 3795	mm/min	0
ELECTRICAL PROPERTIES				
Volume Resistivity	500V	IEC 60093	Ohm*m	1E13 1E11
Surface Resistivity	500V	IEC 60093	Ohm	1E12 1E10
Electric Strength		IEC 60243-1	kV/mm	31 30
Comparative Tracking Index	Sol.A	IEC 60112	-	600

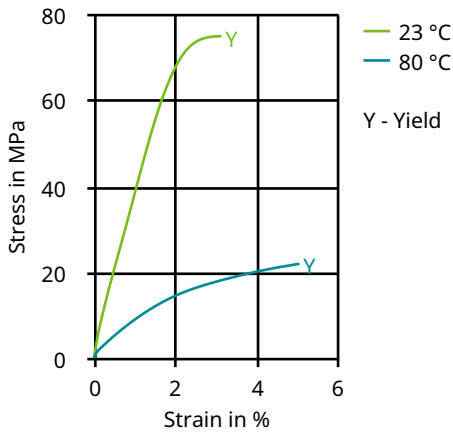
*: DAM = Dry As Moulded state according to ISO 16396-2 **: Cond = Conditioned state similar to ISO 1110 1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]

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Diagrams

Stress-strain (dry)(->RADIFLAM S FR 100 NT)



Stress-strain (cond.)(->RADIFLAM S FR 100 NT)

