

# RADIFLAM A FR 100 NAT (16090)

Material code

Colour code

## DESCRIPTION

PA66 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. Also suitable for monofilament extrusion.

ISO 1043 : PA66 FR(30)

## 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.

### Processing Parameters

Melt Temperature:	Mold Temperature:	Injection Speed:	Extrusion Temp: 270 ÷ 290 °C
270 ÷ 290 °C	60 ÷ 80 °C	Medium	

## PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet



RoHS compliant 2002/95/CE and following amendments



## Technical data sheet

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PROPERTY		STANDARD	UNIT	VALUE	
				DAM*	Cond**
<b>Physical Properties</b>					
Density		ISO 1183	Kg/m <sup>3</sup>	1160	
Moulding shrinkage – Parallel / Normal	280/70/30***	ISO 294-4	%	1.4 / 1.4	
Moisture absorption 23°C – 50%RH	2mm thk	ISO 62	%	1.8	
Water absorption, immersion at 23°C	2mm thk	ISO 62	%	7.7	
<b>Mechanical Properties</b>					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	3450	2600
Stress at Yield	50mm/min	ISO 527-2/1A	MPa	77	50
Nominal Strain at Break	50mm/min	ISO 527-2/1A	%	12	>50
Flexural Modulus	2mm/min	ISO 178	MPa	3200	
Flexural Strength	2mm/min	ISO 178	MPa	115	
Charpy Notched Impact Strength	+23°C	ISO 179/1 eA	KJ/m <sup>2</sup>	4.5	6.5
Charpy Notched Impact Strength	-30°C	ISO 179/1 eA	KJ/m <sup>2</sup>	4	
<b>Thermal Properties</b>					
Melting Temperature	10°C/min	ISO 11357-1-3	°C	260	
Heat Deflection Temperature	1.8 MPa	ISO 75/2 A f	°C	70	
Heat Deflection Temperature	0.45 MPa	ISO 75/2 B f	°C	200	
Vicat Softening Temperature	50°C/h	ISO 306/B50 50N	°C	220	
<b>Flammability Properties</b>					
Flammability	0.4mm	UL 94	class	V0	
Flammability	0.8mm	UL 94	class	V0	
Glow Wire Flammability Index	1mm / 2mm	IEC 60695-2-1/2	°C/mm	960 / 960	
Glow Wire Ignition Temperature	1mm / 2mm	IEC 60695-2-1/3	°C/mm	>775 / >750	
Automotive interior flammability	Burn rate	FMVSS302	mm/min	0	
Railway Classification		NF F 16-101	class	I2/F2	
<b>Electrical Properties</b>					
Volume resistivity	500V	IEC 60093	ohm · m	1 E+13	1 E+11
Surface resistivity	500V	IEC 60093	ohm	1 E+12	1 E+10
Comparative Tracking Index	SoL.A	IEC 60112	V	600	

\*DAM = Dry As Moulded state \*\*Cond = Conditioned state similar to ISO 1110 \*\*\*Melt Temp [°C] / Mold Temp [°C] / Cavity press [MPa]

