

RADILON XTreme RV500HHR 3800 NER

Material code

Colour code

PROVISIONAL

DESCRIPTION

High Temperature polyamide injection molding grade, 50% glass fiber reinforced. Highly improved thermal resistance in contact with hot air. Black colour.

Suitable for applications in very severe temperature conditions, where the parts must endure long term contact with hot air until 220–230 °C. Very good properties retention after ageing. Typical applications in automotive are under bonnet components, like turbo air ducts, intercooler end caps.

ISO 1043 : PA – GF50

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.

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:
300 ÷ 310 °C	90 ÷ 100 °C	Medium-high

PRODUCT SAFETY AND APPROVALS

For safety instruction please refer to Material Safety Data Sheet

RoHS compliant 2011/65/UE and following amendments

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Technical data sheet

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PROPERTY		STANDARD	UNIT	VALUE	
				DAM*	Cond**
Physical Properties					
Density		ISO 1183	Kg/m ³	1550	
Moulding shrinkage – Parallel / Normal	300/90/60***	ISO 294-4	%	0,2 / 0,6	
Moisture absorption 23°C – 50%RH	2mm thk	ISO 62	%	0,9	
Mechanical Properties					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	16000	13500
Stress at Break	5mm/min	ISO 527-2/1A	MPa	220	180
Strain at Break	5mm/min	ISO 527-2/1A	%	3,3	3,3
Flexural Modulus	2mm/min	ISO 178	MPa	15500	13100
Flexural Strength	2mm/min	ISO 178	MPa	350	290
Charpy Impact Strength	+23°C	ISO 179/1 eU	KJ/m ²	115	120
Charpy Notched Impact Strength	+23°C	ISO 179/1 eA	KJ/m ²	20	25
Thermal Properties					
Melting Temperature	10°C/min	ISO 11357-1-3	°C	273	
Heat Deflection Temperature	1.8 MPa	ISO 75/2 A f	°C	255	
Flammability Properties					
Flammability	0.8mm	UL 94	class	HB	
Glow Wire Flammability Index	2mm	IEC 60695-2-1/2	°C/mm	700	
Automotive interior flammability	Burn rate	FMVSS302	mm/min	0	
Electrical Properties					
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

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

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