

RADILON NeXTreme RV500HHR 3800 BK

DESCRIPTION

High Temperature polyamide injection moulding grade, 50% glass fibre reinforced. Superior thermal resistance in contact with hot air. Black colour.

Suitable for demanding mechanical 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. This material can be processed with water conditioned tools.

ISO 1043: PA*-GF50

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

Formerly Known As LX19444

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.

Injection Molding Processing Parameters

Melt Temperature
305 - 315°C

Mold Temperature
90 - 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	1550	
Moisture Absorption 23°C - 50%RH	ISO 62	%		1.2
MECHANICAL PROPERTIES				
Tensile Modulus	ISO 527-2/1A	MPa	16300	
Stress at Break	ISO 527-2/1A	MPa	210	
Strain at Break	ISO 527-2/1A	%	2.7	
Flexural Modulus	ISO 178	MPa	15000	
Flexural Strength	ISO 178	MPa	340	
Charpy Impact Strength	ISO 179/1eU	kJ/m ²	100	
Charpy Impact Strength	ISO 179/1eU	kJ/m ²	110	
Charpy Notched Impact Strength	ISO 179/1eA	kJ/m ²	18	
Charpy Notched Impact Strength	ISO 179/1eA	kJ/m ²	16	
THERMAL PROPERTIES				
Melting Temperature	ISO 11357-1/-3	°C	295	
Heat Deflection Temperature	ISO 75/2Bf	°C	260	
FLAMMABILITY PROPERTIES				
Flammability	UL 94	class		HB
Automotive Interior Flammability	ISO 3795	mm/min		0
ELECTRICAL PROPERTIES				
Volume Resistivity	IEC 62631-3-1	Ohm*m	1E13	1E11
Surface Resistivity	IEC 62631-3-2	Ohm	1E12	1E10

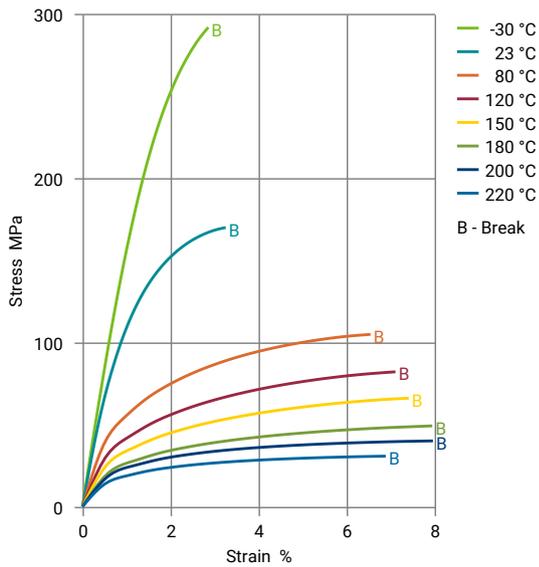
*: DAM = Dry As Moulded state according to ISO 16396-2, **: Cond = Conditioned state similar to ISO 1110



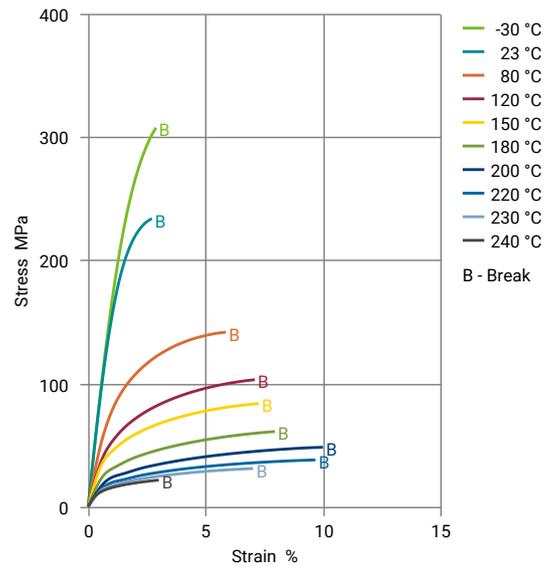
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DIAGRAMS

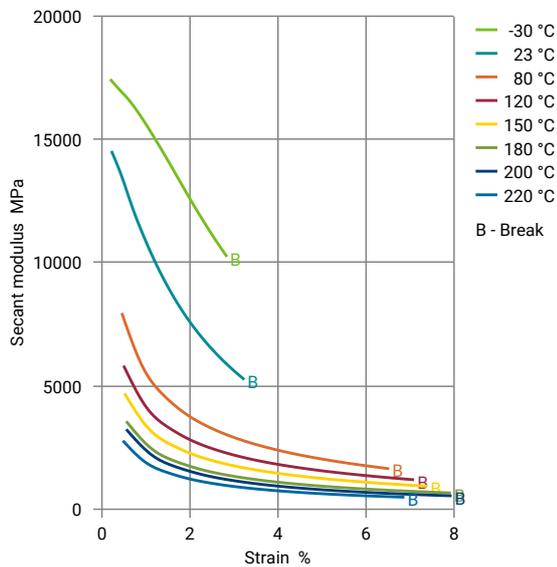
Stress-strain (cond.)



Stress-strain (dry)



Secant modulus-strain (cond.)



Secant modulus-strain (dry)

