

## PRODUCT INFORMATION

# RADILON A CF300K 333 BK

### DESCRIPTION

PA66 30% carbon fiber reinforced injection moulding grade. Heat stabilized. Black colour.

Suitable for parts and components requiring very high mechanical properties: stiffness, dimensional stability, fatigue and creep resistance. The presence of carbon fibers also provides higher electrical and thermal conductivity.

ISO 1043: PA66-T CF30

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 0.15%. 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  
280 - 300°C

Mold Temperature  
80 - 100°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](http://www.ul.com)

ROHS compliant 2011/65/UE and following amendments

## TECHNICAL DATA SHEET

# RADILON A CF300K 333 BK

PROPERTY	STANDARD	UNIT	VALUE	DAM*	Cond**
<b>PHYSICAL PROPERTIES</b>					
Density		kg/m <sup>3</sup>	1270		
Moulding shrinkage - Parallel / Normal	300 / 90 / 60 <sup>[1]</sup>	%	0.2 / 0.4		
Water Absorption, immersion at 23°C	2mm	%	6		
Moisture Absorption 23°C - 50%RH	2mm	%	1.7		
<b>MECHANICAL PROPERTIES</b>					
Tensile Modulus	1mm/min	MPa	23500		14500
Stress at Break	5mm/min	MPa	250		160
Strain at Break	5mm/min	%	2.2		2.5
Flexural Modulus	2mm/min	MPa	19200		
Flexural Strength	2mm/min	MPa	365		
Charpy Impact Strength	+23°C	kJ/m <sup>2</sup>	65		85
Charpy Impact Strength	-30°C	kJ/m <sup>2</sup>	60		
Charpy Notched Impact Strength	+23°C	kJ/m <sup>2</sup>	7		9
Charpy Notched Impact Strength	-30°C	kJ/m <sup>2</sup>	5		
<b>THERMAL PROPERTIES</b>					
Melting Temperature	10°C/min	°C	260		
Heat Deflection Temperature	1.80 MPa	°C	235		
Heat Deflection Temperature	0.45 MPa	°C	250		
Vicat Softening Temperature	50°C/h 50N	°C	240		
<b>FLAMMABILITY PROPERTIES</b>					
Flammability	0.8mm	class	HB		
Glow Wire Flammability Index	2mm	°C	700		
Automotive Interior Flammability	3mm	mm/min	<10		
<b>ELECTRICAL PROPERTIES</b>					
Volume Resistivity	500V	Ohm*m	100		100
Surface Resistivity	500V	Ohm	1000		1000
Comparative Tracking Index	Sol.A	-	150		

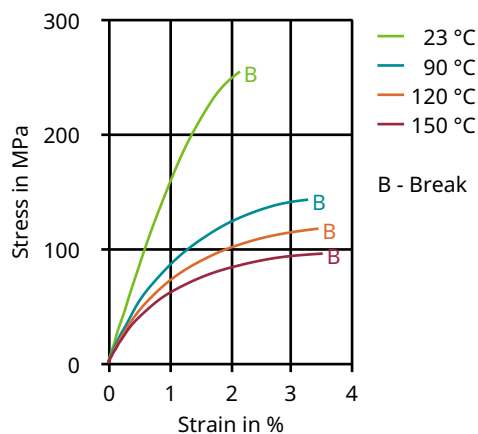
\*: DAM = Dry As Moulded state according to ISO 16396-2 \*\*: Cond = Conditioned state similar to ISO 1110 1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]

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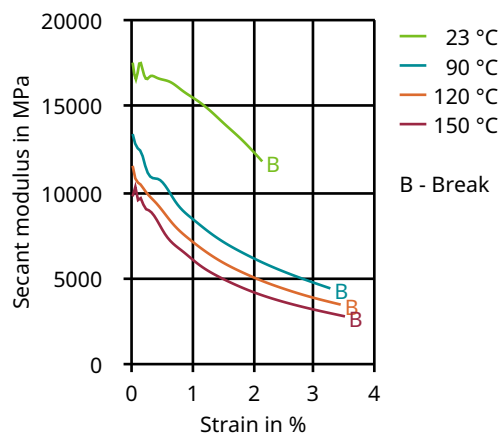
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## Diagrams

## Stress-strain (dry)



## Secant modulus-strain (dry)



## Tensile modulus-temperature

