

RADILON A CF200 333 BK

DESCRIPTION

PA66 20% carbon fibre reinforced injection moulding grade. Black colour.

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

ISO 1043: PA66-CF20

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
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
ROHS compliant 2011/65/EU and following amendments



RADILON A CF200 333 BK

PROPERTY		STANDARD	UNIT	VALUE	
				DAM*	Cond**
PHYSICAL PROPERTIES					
Density		ISO 1183	kg/m³	1220	
Moulding shrinkage - Parallel / Normal	300/90/60 [1]	ISO 294-4	%	0.2 / 0.5	
Water Absorption, immersion at 23°C	2mm	ISO 62	%	6	
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.7	
MECHANICAL PROPERTIES					
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	16600	10200
Stress at Break	5mm/min	ISO 527-2/1A	MPa	220	150
Strain at Break	5mm/min	ISO 527-2/1A	%	2.3	3.5
Flexural Modulus	2mm/min	ISO 178	MPa	14000	
Flexural Strength	2mm/min	ISO 178	MPa	315	
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m²	60	75
THERMAL PROPERTIES					
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	260	
FLAMMABILITY PROPERTIES					
Flammability	0.8mm	UL 94	class	HB	
Automotive Interior Flammability	3mm	ISO 3795	mm/min	<10	
ELECTRICAL PROPERTIES					
Volume Resistivity	500V	IEC 62631-3-1	Ohm*m	100	100

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

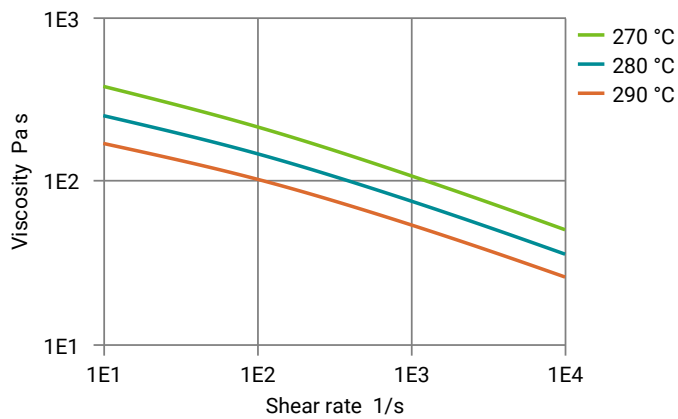
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



RADILON A CF200 333 BK

DIAGRAMS

Viscosity-shear rate



Shearstress-shear rate

