

RENYCLE S GF3001K 3033 BK

PROVISIONAL

DESCRIPTION

Partially recycled PA6, 30% glass-fibre-reinforced injection moulding grade. Heat stabilized. Black colour.

The recycled material has been developed to reduce its environmental impact in comparison to traditional virgin options. Suitable for parts requiring high stiffness and good mechanical strength along with good heat-ageing resistance.

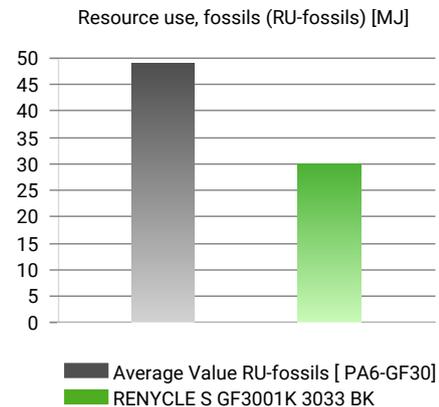
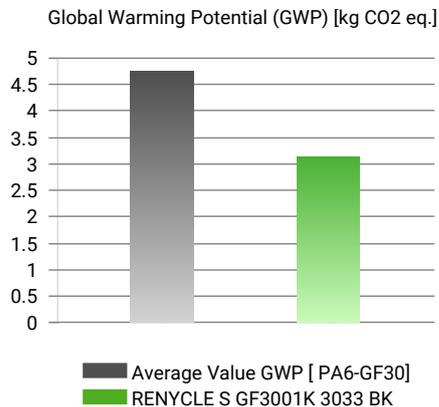
ISO 1043: PA6-GF30

REGIONAL AVAILABILITY: Europe

THE CHARACTERISTICS SHOWN HERE ARE PROVISIONAL AND REFLECT THE AVERAGE VALUES OF PROPERTIES MEASURED OVER A LIMITED NUMBER OF PRODUCTION CAMPAIGNS

Formerly Known As RADILON S X21204 BK

ENVIRONMENTAL PERFORMANCE



The environmental performance metrics GWP and RU-fossils are defined per kg of material produced and are up to date as of the release date of the Technical Data Sheet.

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
240 - 280°C

Mold Temperature
80 - 90°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



RENYCLE S GF3001K 3033 BK

PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
PHYSICAL PROPERTIES				
Density		kg/m ³	1360	
Moulding shrinkage - Parallel / Normal	280/90/60 ^[1]	ISO 1183 ISO 294-4	%	0.3 / 0.8
Water Absorption, immersion at 23°C	2mm	ISO 62	%	7
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	2
MECHANICAL PROPERTIES				
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	9500
Stress at Break	5mm/min	ISO 527-2/1A	MPa	150
Strain at Break	5mm/min	ISO 527-2/1A	%	3
Flexural Modulus	2mm/min	ISO 178	MPa	8600
Flexural Strength	2mm/min	ISO 178	MPa	230
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	65
Charpy Impact Strength	-30°C	ISO 179/1eU	kJ/m ²	50
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m ²	8.5
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m ²	6
THERMAL PROPERTIES				
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	218
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	200
Heat Deflection Temperature	0.45 MPa	ISO 75/2Bf	°C	215
FLAMMABILITY PROPERTIES				
Flammability	0.8mm	UL 94	class	HB

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

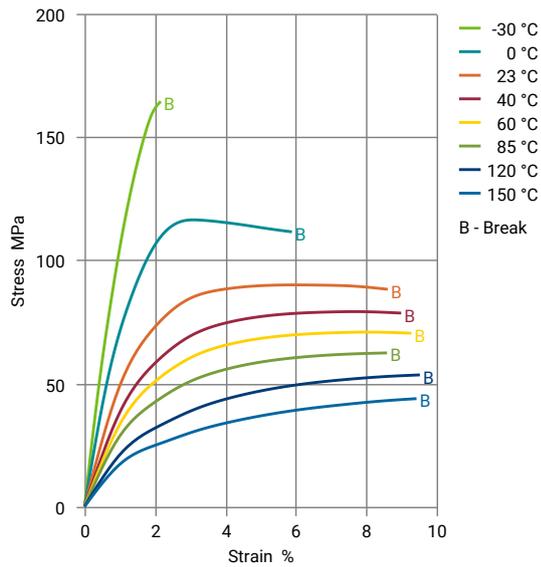
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



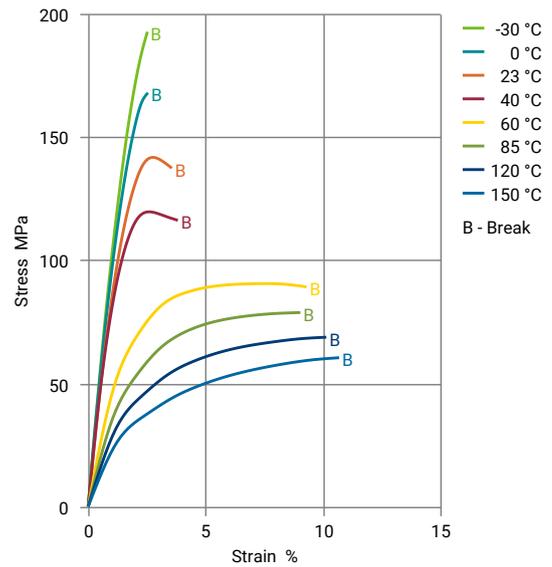
RENYCLE S GF3001K 3033 BK

DIAGRAMS

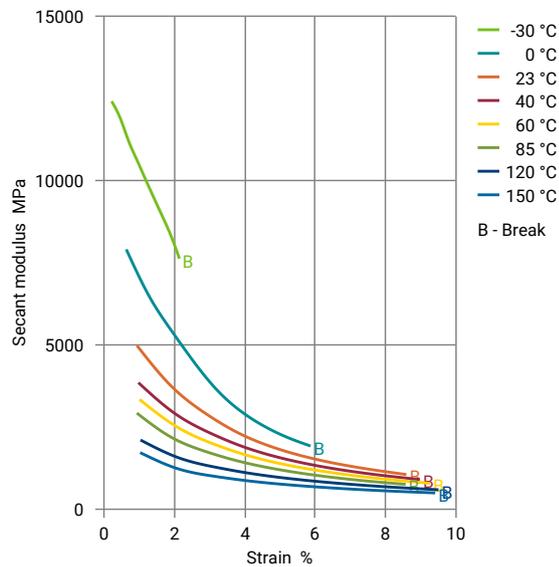
Stress-strain (cond.)



Stress-strain (dry)



Secant modulus-strain (cond.)



Secant modulus-strain (dry)

