

# RENYCLE A GF5004K 3033 BK

PROVISIONAL

## DESCRIPTION

Recycled PA66, 50% glass-fibre injection moulding grade. Heat stabilized. Black colour.

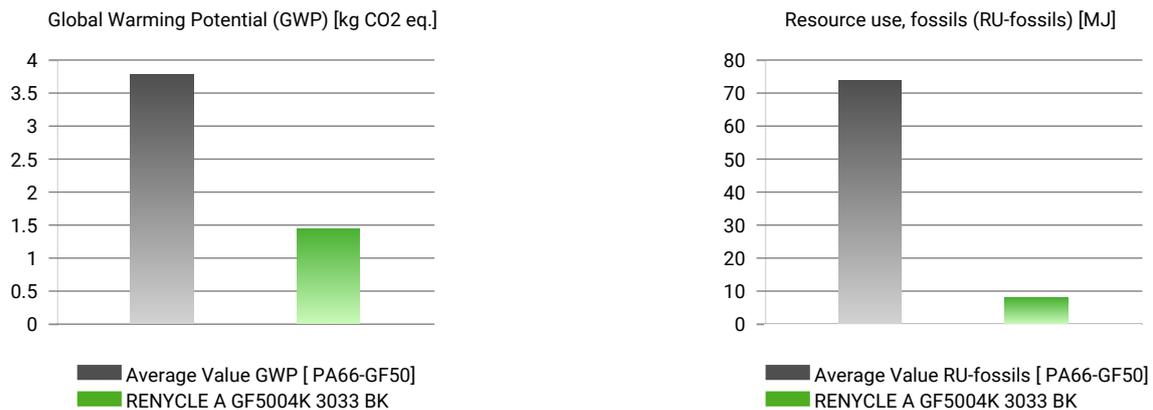
The recycled material has been developed to reduce its environmental impact in comparison to traditional virgin options. Suitable for parts requiring high stiffness and good mechanical resistance.

ISO 1043: PA66-GF50

REGIONAL AVAILABILITY: Europe

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

## 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. 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-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**
<b>PHYSICAL PROPERTIES</b>				
Density		kg/m <sup>3</sup>	1580	
Moulding shrinkage - Parallel / Normal	280/90/60 <sup>[1]</sup>	ISO 1183 ISO 294-4	%	0.2 / 0.6
Water Absorption, immersion at 23°C	2mm	ISO 62	%	4.8
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.4
<b>MECHANICAL PROPERTIES</b>				
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	16300
Stress at Break	5mm/min	ISO 527-2/1A	MPa	180
Strain at Break	5mm/min	ISO 527-2/1A	%	2
Flexural Modulus	2mm/min	ISO 178	MPa	15500
Flexural Strength	2mm/min	ISO 178	MPa	300
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m <sup>2</sup>	65
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	10
<b>THERMAL PROPERTIES</b>				
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	260
<b>FLAMMABILITY PROPERTIES</b>				
Flammability	0.8mm	UL 94	class	HB
<b>ELECTRICAL PROPERTIES</b>				
Volume Resistivity	500V	IEC 62631-3-1	Ohm*m	1E13
Surface Resistivity	500V	IEC 62631-3-2	Ohm	1E12

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

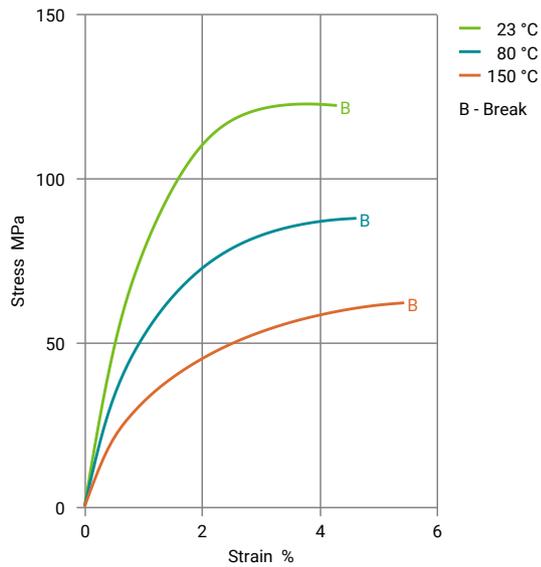
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



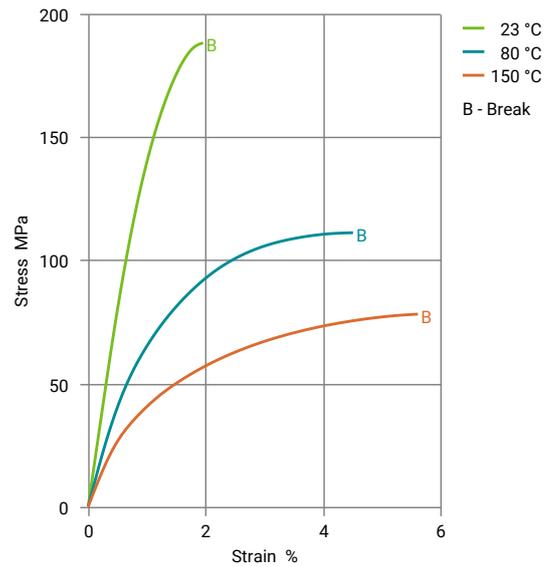
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## DIAGRAMS

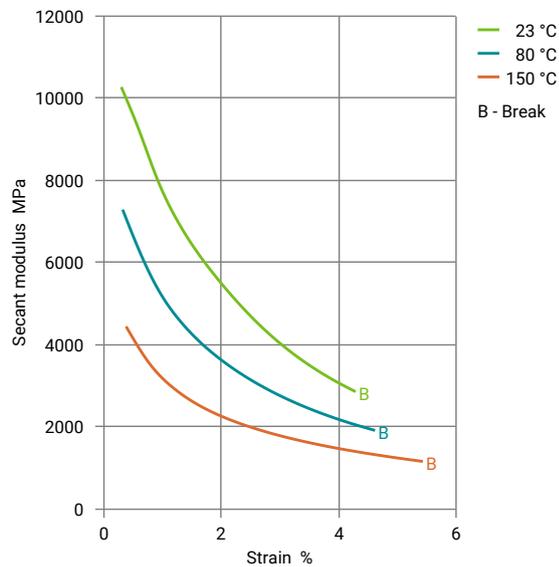
### Stress-strain (cond.)



### Stress-strain (dry)



### Secant modulus-strain (cond.)



### Secant modulus-strain (dry)

