

RENYCLE A GF3002HR 3039 BK

DESCRIPTION

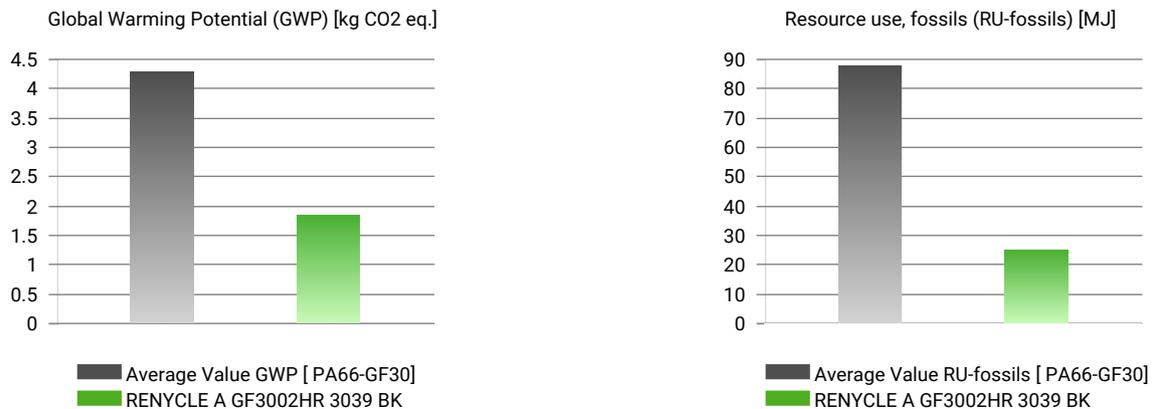
Partially recycled PA66, 30% glass-fibre injection moulding grade. Heat stabilized, hydrolysis resistant. Black colour.

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-GF30

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

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**
PHYSICAL PROPERTIES				
Density		kg/m ³	1370	
Moulding shrinkage - Parallel / Normal	300/90/60 ^[1]	ISO 1183 ISO 294-4	%	0.3 / 1.0
Water Absorption, immersion at 23°C	2mm	ISO 62	%	6.2
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.6
MECHANICAL PROPERTIES				
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	9800
Stress at Break	5mm/min	ISO 527-2/1A	MPa	160
Strain at Break	5mm/min	ISO 527-2/1A	%	3.1
Flexural Modulus	2mm/min	ISO 178	MPa	9100
Flexural Strength	2mm/min	ISO 178	MPa	260
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	60
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
Charpy Notched Impact Strength	-30°C	ISO 179/1eA	kJ/m ²	6.4
THERMAL PROPERTIES				
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	260
Heat Deflection Temperature	1.80 MPa	ISO 75/2Af	°C	240
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

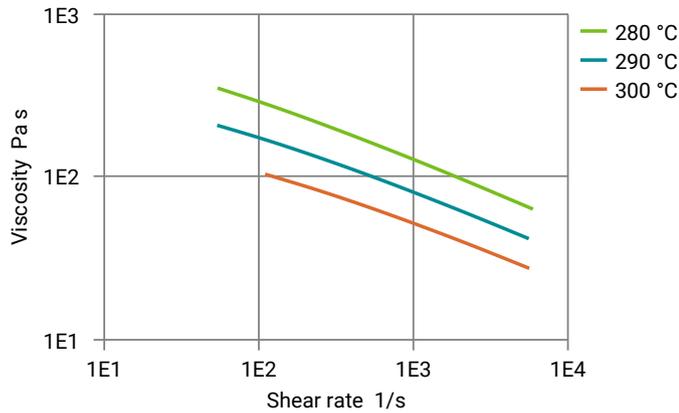
1: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



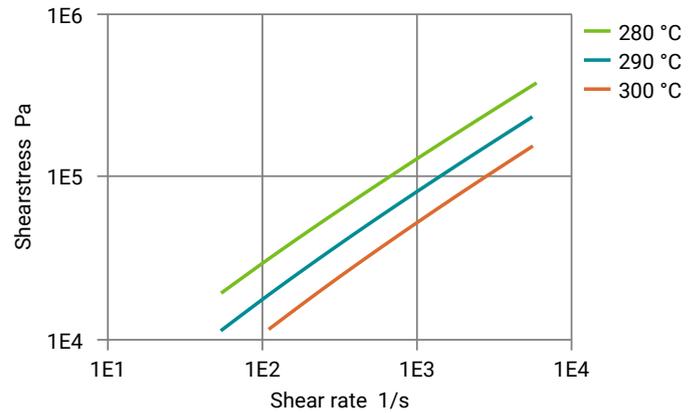
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DIAGRAMS

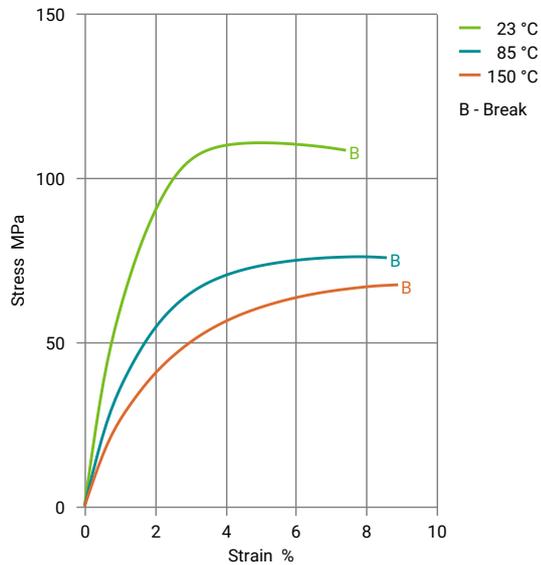
Viscosity-shear rate



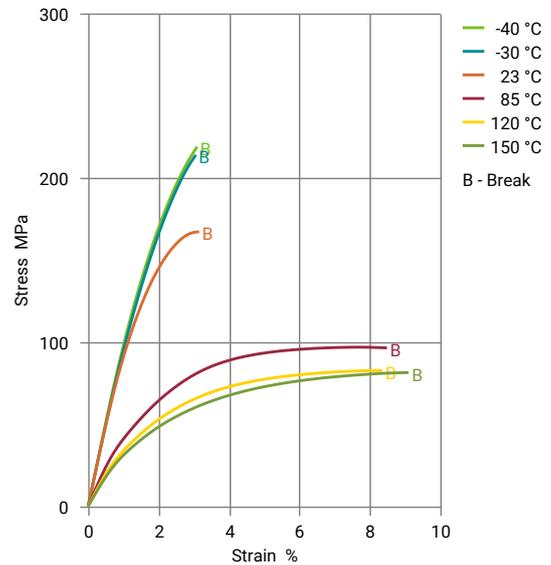
Shearstress-shear rate



Stress-strain (cond.)

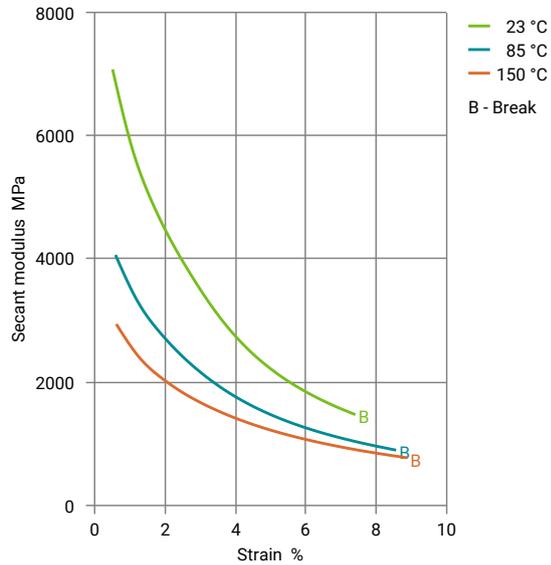


Stress-strain (dry)

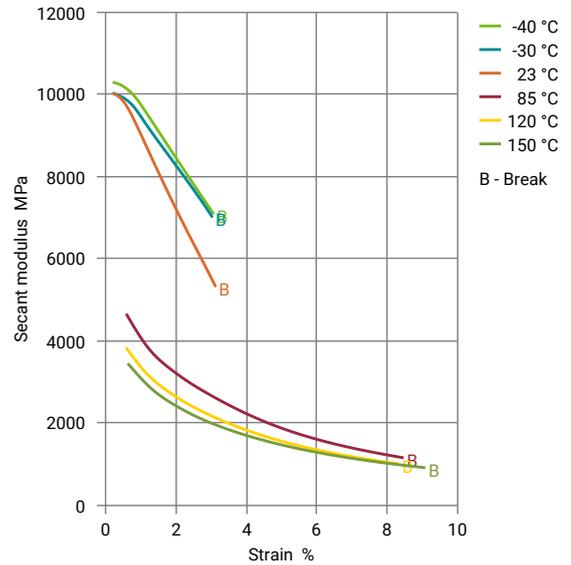


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Secant modulus-strain (cond.)



Secant modulus-strain (dry)



Specific volume-temperature (pvT)

