

RENYCLE S GF3501KN 3033 BK

DESCRIPTION

Partially recycled PA6, 35% glass-fibre-reinforced injection moulding grade. Improved heat stabilization, Electrically neutral and DPPD free stabilized material. 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, good mechanical resistance and good heat ageing properties retention.

ISO 1043: PA6-GF35

REGIONAL AVAILABILITY: Europe, Asia Pacific, 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
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



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PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
PHYSICAL PROPERTIES				
Density	ISO 1183	kg/m ³	1400	
Melt Flow Rate	ISO 1133	g/10min		20
Moulding shrinkage - Parallel / Normal	ISO 294-4	%	0.3 / 0.8	
Water Absorption, immersion at 23°C	ISO 62	%	6.4	
Moisture Absorption 23°C - 50%RH	ISO 62	%	1.8	
Viscosity Index (Sulfuric Acid)	ISO 307	ml/g	137	
MECHANICAL PROPERTIES				
Tensile Modulus	ISO 527-2/1A	MPa	11000	7700
Stress at Break	ISO 527-2/1A	MPa	155	115
Strain at Break	ISO 527-2/1A	%	2.8	3.7
Flexural Modulus	ISO 178	MPa	10500	6600
Flexural Strength	ISO 178	MPa	255	189
Charpy Impact Strength	ISO 179/1eU	kJ/m ²	70	83
Charpy Notched Impact Strength	ISO 179/1eA	kJ/m ²	10	18
THERMAL PROPERTIES				
Melting Temperature	ISO 11357-1/-3	°C	220	
FLAMMABILITY PROPERTIES				
Flammability	UL 94	class	HB	
ELECTRICAL PROPERTIES				
Volume Resistivity	IEC 62631-3-1	Ohm*m	1E13	1E11
Surface Resistivity	IEC 62631-3-2	Ohm	1E12	1E10
Comparative Tracking Index	IEC 60112	V	550	

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

1: Temperature [°C] / Load [kg]

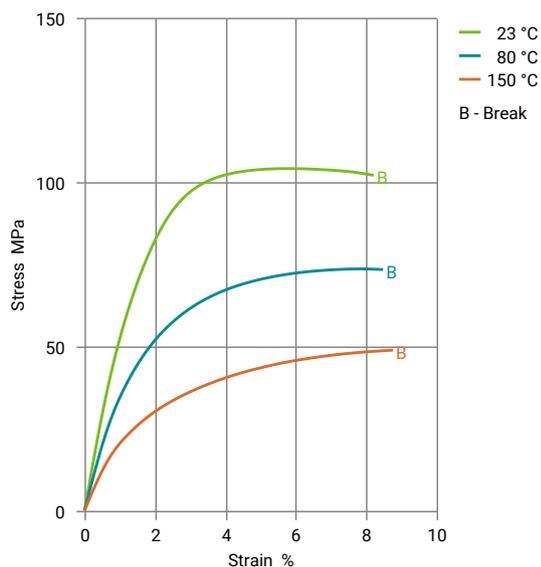
2: Melt Temperature [°C] / Mold Temperature [°C] / Cavity Pressure [MPa]



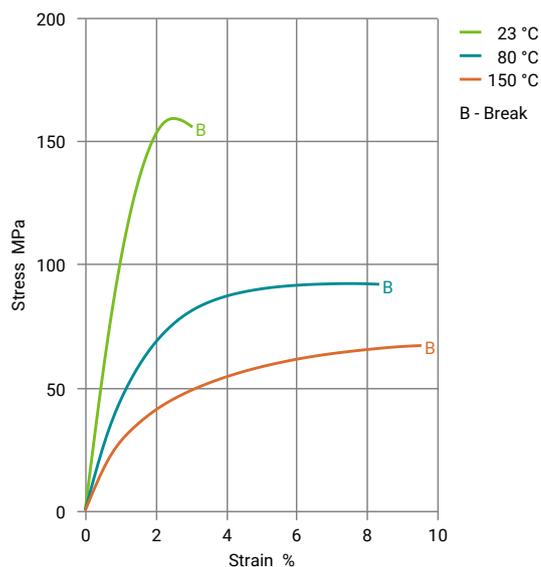
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DIAGRAMS

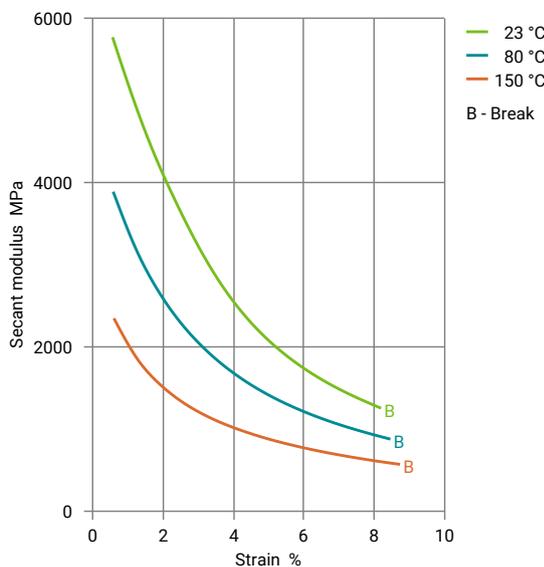
Stress-strain (cond.)



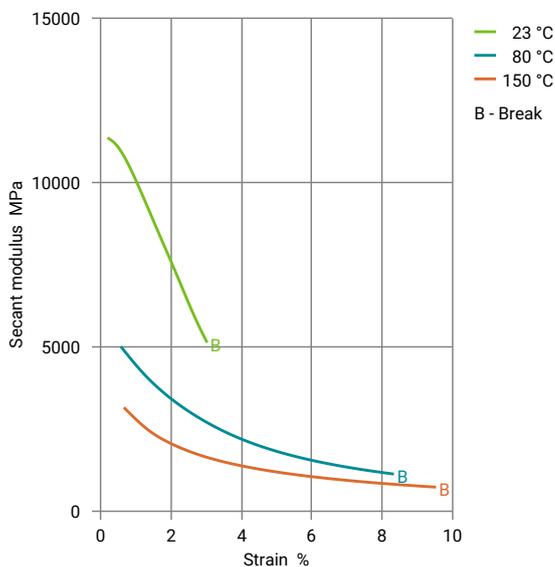
Stress-strain (dry)



Secant modulus-strain (cond.)



Secant modulus-strain (dry)



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Thermal expansion

