

# RENYCLE S T203K 3030 BK

## DESCRIPTION

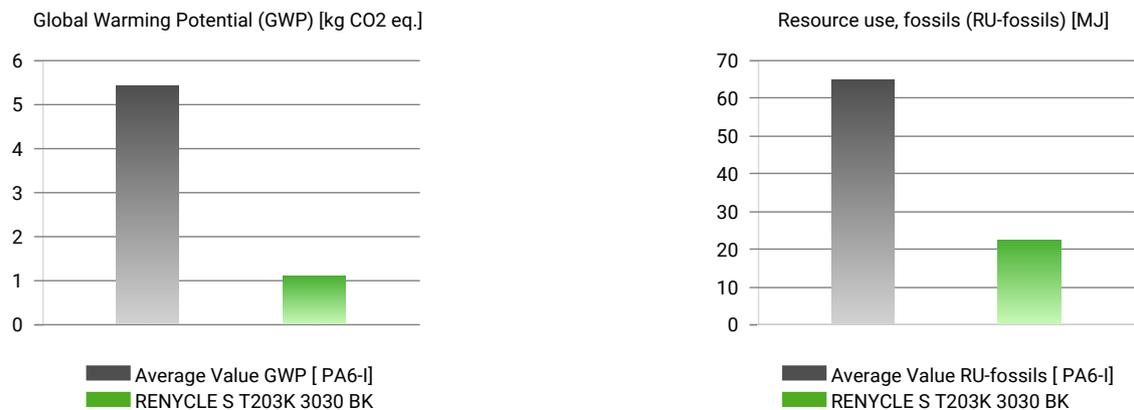
Recycled PA6, injection moulding grade. Toughened. Heat stabilized. Black colour.

The recycled material has been developed to reduce its environmental impact in comparison to traditional virgin options.

ISO 1043: PA6-I

REGIONAL AVAILABILITY: Europe, Asia Pacific

## 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  
70 - 80°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



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PROPERTY	STANDARD	UNIT	VALUE	
			DAM*	Cond**
<b>PHYSICAL PROPERTIES</b>				
Density	ISO 1183	kg/m <sup>3</sup>	1110	
Melt Flow Rate	ISO 1133	g/10min		20
Moulding shrinkage - Parallel / Normal	ISO 294-4	%		1.4 / 1.6
Water Absorption, immersion at 23°C	ISO 62	%		9.2
Moisture Absorption 23°C - 50%RH	ISO 62	%		2.6
<b>MECHANICAL PROPERTIES</b>				
Tensile Modulus	ISO 527-2/1A	MPa	2400	850
Stress at Yield	ISO 527-2/1A	MPa	60	35
Yield Strain	ISO 527-2/1A	%	4.2	230
Nominal Strain at Break	ISO 527-2/1A	%	35	>50
Flexural Modulus	ISO 178	MPa	2400	720
Flexural Strength	ISO 178	MPa	90	30
Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>		N
Charpy Notched Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	16	90
Charpy Notched Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	10	
<b>THERMAL PROPERTIES</b>				
Melting Temperature	ISO 11357-1/-3	°C		220
Heat Deflection Temperature	ISO 75/2Af	°C		60
<b>FLAMMABILITY PROPERTIES</b>				
Automotive Interior Flammability	ISO 3795	mm/min		<30

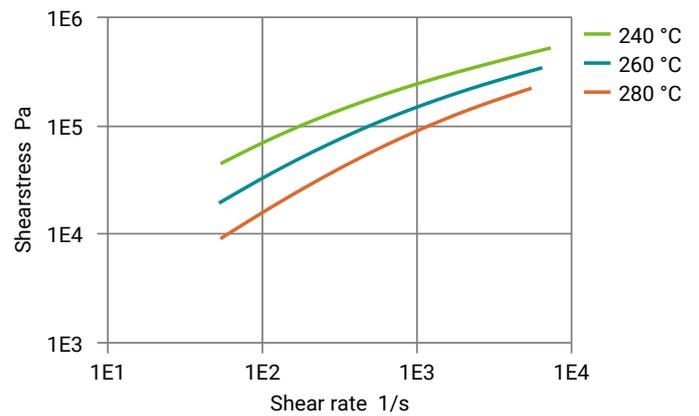
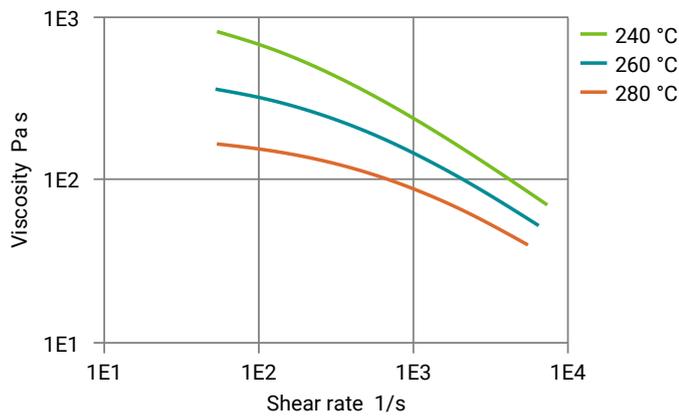
\*: DAM = Dry As Moulded state according to ISO 16396-2, \*\*: Cond = Conditioned state similar to ISO 1110

1: Temperature [°C] / Load [kg]

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



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**DIAGRAMS**
*Viscosity-shear rate*
*Shearstress-shear rate*

*Specific volume-temperature (pvT)*
