

RENYCLE S GF2001 FR2 3004 BK

PRELIMINARY

DESCRIPTION

Partially recycled PA6, flame retardant injection moulding grade, halogen and phosphorus free. 20% glass-fibre-reinforced. Black colour.

The recycled material has been developed to reduce its environmental impact in comparison to traditional virgin options. Suitable for parts requiring fire retardancy along with medium stiffness and enhanced mechanical resistance. Tested V-2 at 0.8 mm according to UL-94.

ISO 1043: PA6-GF20 FR(30)

REGIONAL AVAILABILITY: Europe

THE CHARACTERISTICS SHOWN HERE MUST BE CONSIDERED PRELIMINARY AND INDICATIVE FOR A PRODUCT AT DEVELOPMENTAL STAGE

MATERIAL HANDLING AND PROCESSING

The material is delivered in moisture-proof packaging ready for processing. Maximum recommended water content for best processing is 0.10%. 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

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			1310	
Water Absorption, immersion at 23°C	2mm	ISO 1183 ISO 62	kg/m ³	6.5
Moisture Absorption 23°C - 50%RH	2mm	ISO 62	%	1.8
MECHANICAL PROPERTIES				
Tensile Modulus	1mm/min	ISO 527-2/1A	MPa	5200
Stress at Break	5mm/min	ISO 527-2/1A	MPa	80
Strain at Break	5mm/min	ISO 527-2/1A	%	11
Flexural Modulus	2mm/min	ISO 178	MPa	4900
Flexural Strength	2mm/min	ISO 178	MPa	140
Charpy Impact Strength	+23°C	ISO 179/1eU	kJ/m ²	40
Charpy Notched Impact Strength	+23°C	ISO 179/1eA	kJ/m ²	4
THERMAL PROPERTIES				
Melting Temperature	10°C/min	ISO 11357-1/-3	°C	220
FLAMMABILITY PROPERTIES				
Flammability	0.8mm	UL 94	class	V-2
Glow Wire Flammability Index	2mm	IEC 60695-2-12	°C	700
Glow Wire Flammability Index	3mm	IEC 60695-2-12	°C	850
Automotive Interior Flammability	3mm	ISO 3795	mm/min	0
ELECTRICAL PROPERTIES				
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

