TECHNYL®

DOMO caring is our formula

TECHNICAL DATA SHEET

TECHNYL AR 130/GF BLACK

TECHNYL AR 130/GF BLACK is a polyamide 66, reinforced with 30% of glass fiber, heat stabilized, for injection moulding. It contains recycled raw materials. This grade offers a good combination between thermal and mechanical properties. This product is not suitable for hot runners. The data provided in this document are based on mean values of a significant number of measurements. However as this products contains recycled materials, its properties may vary over a larger range than a material made from virgin raw materials.

General

Feature	Heat-aging stabilized	
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	General Purpose	
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GF30

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.37
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	9500 / 6000
Stress at break		ISO 527-1/-2	MPa	170 / 95
Strain at break		ISO 527-1/-2	%	2.3 / 7
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	8250 / 5500
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	245 / 140
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	45 / 65
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	6 / 9
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	38 / -

Thermal properties

	Condition	Standard	Unit	Value
Melting temperature, 10°C/min		ISO 11357-1	°C	260
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	260
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	245

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for black products.
**: conditioned according to ISO 1110*

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	280 - 290 °C
Recommended mould temperature	70 - 100 °C

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part. Thess TECHNYL grades are not recommended for injection moulding hot runner systems with a diameter below 1mm.

Injection notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered. The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design. Not suitable for hot runners.

Disclaimer