

PROVISIONAL DATASHEET

DEVELOPMENT PRODUCT

Grilon B XE 5026 (BG-30 H) black 9922

DESCRIPTION:

Grilon B XE 5026 (BG-30 H) black 9922 is a high heat stabilized, 30% glassfiber reinforced PA6- Injection moulding grade with modified flowability.

Grilon B XE 5026 (BG-30 H) black 9922 main characteristics are the following properties:

- high heat aging resistance
- excellent surface finish
- easy processibility
- high stiffness and impact strength even after long-term heat tempering

Grilon B XE 5026 (BG-30 H) black 9922 main attributes are to be shown for the production of parts with high needs on temperature resistance with highest demands on temperature resistance, for example parts like applications in engine rooms of vehicles.

Processing:

Processing recommendations for Injection moulding production:

The following parameters are to be recommended for the processing of Grilon B XE 5026 (BG-30 H) black 9922 on basic PA-capable Injection moulding machines:

Mass temperature:	270 – 300 °C
tool temperature:	80 – 100 °C
Injection speed:	average – high
Holding pressure (spec.):	300 – 800 bar
Dynamic pressure (hydr.):	5 – 15 bar
screwing speed:	50 – 100 min ⁻¹

Grilon B XE 5026 (BG-30 H) black 9922 will be delivered dried and ready for processing.

If the material has taken up moisture, the material should be pre-dried with following recommendations (i.e. dry air drier), max. 80 °C, 4 – 12 hours.

Properties

Mechanical Properties

Grilon B XE 5026 (BG-30 H)

Tensile-E-Modulus	1 mm/min	ISO 527	MPa	dry cond.	9 500 6 000
Tensile strength at yield	5 mm/min	ISO 527	MPa	dry cond.	185 125
Elongation at yield	5 mm/min	ISO 527	%	dry cond.	4 10
Impact strength	Charpy, 23°C	ISO 179/1eU	kJ/m ²	dry cond.	85 90
Impact strength	Charpy, -30°C	ISO 179/1eU	kJ/m ²	dry cond.	70 70
Notched impact strength	Charpy, 23°C	ISO 179/1eA	kJ/m ²	dry cond.	11 20
Notched impact strength	Charpy, -30°C	ISO 179/1eA	kJ/m ²	dry cond.	8 9
Ball indentation hardness	F _m = 961 N F _m = 358 N	ISO 2039-1	MPa	dry cond.	210 100

Thermal Properties

Melting point	DSC	ISO 11357	°C	dry	222
Heat deflection temperature HDT/A	1.80 MPa	ISO 75	°C	dry	205
Heat deflection temperature HDT/B	0.45 MPa	ISO 75	°C	dry	*
Heat deflection temperature HDT/C	8.00 MPa	ISO 75	°C	dry	135
Maximal usage temperature	long term	ISO 2578	°C	dry	120 -135
Maximal usage temperature	short term	ISO 2578	°C	dry	200

Electric Properties

Dielectric strength	K20/P50	IEC 60243-1	kV/mm	dry cond.	40 37
Comparative tracking index	CTI	IEC 60112	---	cond.	500
Volume resistivity		IEC 60093	Ω m	dry kond.	10 ¹² 10 ¹¹
Specific surface resistivity		IEC 60093	Ω	cond.	10 ¹²

General Properties

Density		ISO 1183	g/cm ³	dry	1,35
Flammability (UL94)	0,8mm	ISO 1210	Stufe		HB
Water absorption	23°C/gesätt.	ISO 62	%		7
Moisture absorption	23°C/50%r.F.	ISO 62	%		2
Linear mould shrinkage	long.	60x70x4; 295 °C / WT 80 °C; 500 bar	%	dry	0,10
Linear mould shrinkage	trans.	60x70x4; 295 °C / WT 80 °C; 500 bar	%	dry	0,55

Product Description acc. ISO 1874: PA6, MHR, 14-090, GF30

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- Grilon B XE 5026 (BG-30 H) black 9922 is an R&D product.
- The properties stated above are preliminary and are not binding.
- Über eine Kommerzialisierung des Produktes ist noch nicht entschieden.

* Gemäß CAMPUS 4.5 nicht relevant