+135-3858-6433 (GuangDong)
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TECHNYL® RED
High thermal resistance

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL RED J 218HP V50 BK 21N

TECHNYL RED J 218HP V50 BLACK 21N is a co-polyamide 66/6T reinforced with 50% glass fibre, heat stabilized, for injection moulding. This grade offers outstanding long-term heat ageing performance of up to 220°C for 2000 hours or 210°C for 3000 hours in addition to strength and stiffness at use temperature higher than 35% glass fiber grades. TECHNYL RED J shows high chemical resistance, easy processing and excellent surface aspect. In addition, TECHNYL RED J delivers high burst pressure levels. Recommended melt and mold temperatures are significantly lower than competitive PA4.6 or PPA resins, which saves energy during processing and minimizes part cooling time. The data provided are based on laboratory / experimental results and could be adjusted after industrial production.

General

Feature	Chemical resistant Good surface finish heat resistant	Excellent processability High stiffness
Polymer type	PA66/6T copolymer	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications	
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66/6T-GF50
ISO 16396 designation	PA66/6T,GF500,M1,S14-160

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.6
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.29
Molding shrinkage, normal		ISO 294-4, 2577	%	0.55
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	17000 / 14500
Stress at break		ISO 527-1/-2	MPa	240 / 185
Strain at break		ISO 527-1/-2	%	2.3 / 3.6
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	85 / 89
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	16 / -

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Thermal properties

	Condition	Standard	Unit	Value
Melting temperature, 10°C/min		ISO 11357-1	°C	271
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	249

**: conditioned according to ISO 1110*

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.12 %
Rear temperature	290 - 300 °C
Middle temperature	295 - 305 °C
Front temperature	300 - 310 °C
Recommended mould temperature	85 - 100 °C

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.

Disclaimer

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufactures in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.