TECHNYL® RED
High thermal resistance

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL RED A 218HPS V35 BK 21N

TECHNYL RED A 218HPS V35 BK 21N is a polyamide blend of polyamide 6.6 polyamide 6 reinforced with 35% of glass fiber, high heat stabilized for injection moulding. This grade is designed to offer a long term heat resistance and is suitable to work in environments characterized by a very high temperature. (210°C)

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66 + PA6	
Feature	heat-aging stabilized heat resistant	good surface finish
Applications	automotive applications	
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66+PA6-GF35
ISO 16396 designation	PA66+PA6,GF35,MH,S09-120

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.42
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.9 - 2.1
Water absorption	24 hr, 23°C	ISO 62	%	0.75
Water absorption, saturation			%	4.9
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.65 - 0.75

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	11600 / 6500
Stress at break		ISO 527-1/-2	MPa	195 / 115
Strain at break		ISO 527-1/-2	%	3.3 / 6.6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9800 / 5900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	300 / 190
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	90 / 95
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	78 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	13 / 22
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	9 / -

: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	250
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	248
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	226

	Condition	Standard	Unit	Value
Burning behaviour				
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	725
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100mm/min

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Electrical properties

	Condition	Standard	Unit	Value
Comparative tracking index	Solution A	IEC 60112	V	325.0
CTI performance level category		Sol A		PLC 2
Dielectric strength	1 mm	IEC 60243-1	kV/mm	34.0

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

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.