TECHNYL®

DOMO caring is our formula

TECHNICAL DATA SHEET

TECHNYL C 216 V40 BK Z

TECHNYL C 216 V40 BK Z is a polyamide 6, reinforced with 40% of glass fibre, for injection moulding. This grade has good mechanical properties and offering an excellent combination between thermal and mechanical properties.

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	high stiffness	
Applications	automotive applications	
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF40

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.45
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Water absorption, saturation			%	4.5
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.35
Molding shrinkage, normal		ISO 294-4, 2577	%	0.65

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	13000 / 7300
Stress at break		ISO 527-1/-2	MPa	190 / 130
Strain at break		ISO 527-1/-2	%	2.8 / 4
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	11800 / 7200
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	300 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	85 / 110
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	15 / 30
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m²	75 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	14 / 29

: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	214

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.40 mm	0.40 mm	UL 94		HB
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB
Glow-wire flammability index, GWFI, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	650
Glow-wire flammability index, GWFI, 3.0 mm			°C	650

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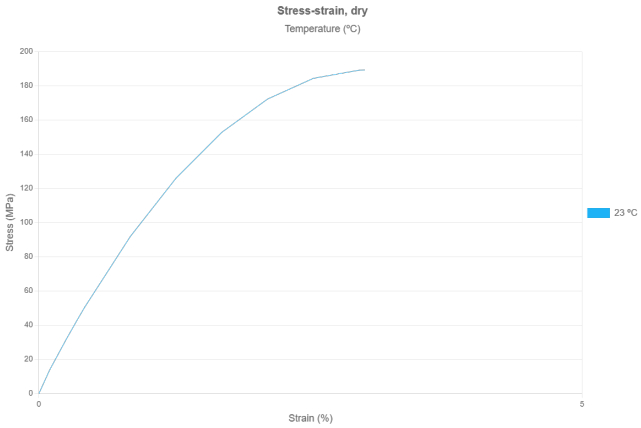
	Condition	Standard	Unit	Value

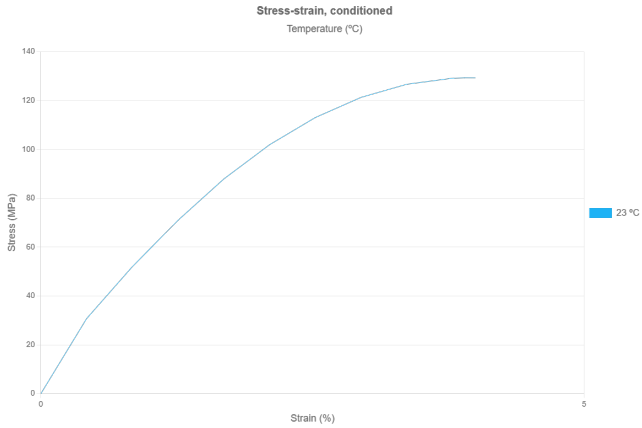
Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E14

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	235 - 240 °C
Middle temperature	240 - 250 °C
Front temperature	250 - 260 °C
Recommended mould temperature	60 - 90 °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.