TECHNYL®

DOMO caring is our formula

TECHNICAL DATA SHEET

TECHNYL C 216 V40 BK

DOMAMID 6LVG40 300 BK

Polyamide 6, 40% glass fiber reinforced, improved flowability, for injection moulding, black

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA6	
Feature	good stiffness	
Colors available	black	natural
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GF40
ISO 16396 designation	PA6,GF40,M,S12-120

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.45
Humidity absorption	T=23°C, 50% RH	ISO 62	%	1.8 - 2.0
Water absorption	24 hr, 23°C	ISO 62	%	1.3 - 1.4
Water absorption, saturation			%	5.7
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.1 - 0.3
Molding shrinkage, normal		ISO 294-4, 2577	%	0.5 - 0.7
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm³/10 min	45.0
Viscosity number	96% H2SO4	ISO 307	cm³/g	125.0

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	12000 / 7300
Stress at break	5 mm/min	ISO 527-1/-2	MPa	200 / 125
Strain at break	5 mm/min	ISO 527-1/-2	%	2.9 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	10700 / 7300
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	310 / 160
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	85 / 85
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	89 / 85
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	15 / 23
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	12 / 11

: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	215
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	210
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	218

	Condition	Standard	Unit	Value
Burning behaviour				
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

	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

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Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Suggested max moisture	0.2 %
Recommended melt temperature	250 - 290 °C
Recommended mould temperature	80 - 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.