

TECHNICAL DATA SHEET

TECHNYL C 246SI V15 BK

(Previously DOMAMID 6G15IK1 202 BK)

Polyamide 6, 15% glass fiber reinforced, low temperature impact modified, for injection moulding, black

General

Feature	Impact modified	Low temperature impact modified
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-I-GF15
ISO 16396 designation	PA6-I,GF15,M,S14-050

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value	
Density	ISO 1183	g/cm ³	1.2	
Molding shrinkage, parallel	ISO 294-4, 2577	%	0.7 - 0.9	
Molding shrinkage, normal	ISO 294-4, 2577	%	1 - 1.2	
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	35
Viscosity number	96% H2SO4	ISO 307	cm ³ /g	145

Mechanical properties

dam / cond.*

Condition	Standard	Unit	Value	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	5200 / 3100
Stress at break	5 mm/min	ISO 527-1/-2	MPa	110 / 70
Strain at break	5 mm/min	ISO 527-1/-2	%	3.5 / 14
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	4700 / 2500
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	70 / 105
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	60 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	14 / 27
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	5 / -

	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	190
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	210

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013

Burning behaviour

Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min
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*Test run at 23°C if not differently specified, DAM state (dry as moulded).
: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	250 - 290 °C
Recommended mould temperature	80 - 100 °C

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

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.

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