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TECHNICAL DATA SHEET

TECHNYL C 246SIL1 BK

(Previously DOMAMID 6IK4UV1 BK)

Polyamide 6, UV-stabilized, low temperature impact modified, for injection moulding

General

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

Product identification

ISO 1043 abbreviation	PA6-I
ISO 16396 designation	PA6-I,M1L1,S14-020

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.06
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.8 - 1.9
Molding shrinkage, normal		ISO 294-4, 2577	%	2.25 - 2.4

	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	1850 / -
Stress at break		ISO 527-1/-2	MPa	35 / -
Strain at break		ISO 527-1/-2	%	35 / -
Yield stress		ISO 527-1/-2	MPa	45 / -
Yield strain		ISO 527-1/-2	%	4 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	1600 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	60 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU		NB / NB
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	NB / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	80 / -
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	29 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U		NB / NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	75 / -
Izod notched impact strength, -30°C	-30°C	ISO 180/1A	kJ/m²	40 / -
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	165
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	55
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	155
Electrical properties				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013
Burning behaviour				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100

**: 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	240 - 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 unfilled polyamides, Domo recommends the use of high alloy steel with a low chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (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

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