

TECHNICAL DATA SHEET

TECHNYL C 246SIL1 GN 6080

DOMAMID 6IK4UV1 GN66080

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

General

Polymer type	PA6		
Certifications	RoHS	EC 1907/2006 (REACH)	
Feature	impact modified high impact resistant	UV stabilized	
Colors available	black	grey	
Forms	pellets		
Processing technology	injection moulding		

Product identification

ISO 1043 abbreviation	PA6-I
ISO 16396 designation	PA6,MPL1,S14-020

Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.06
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.55 - 1.7
Molding shrinkage, normal		ISO 294-4, 2577	%	2.1 - 2.3

	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	%	20 / -
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	kJ/m ²	NB
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m ²	NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	70 / -
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	25 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	NB
Izod impact strength, -30°C	NB	ISO 180/1U	kJ/m ²	NB
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	65 / -
Izod notched impact strength, -30°C	-30°C	ISO 180/1A	kJ/m ²	20 / -

*: **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	170
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

Condition	Standard	Unit	Value
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Burning behaviour

Flammability, 0.75 mm	0.75 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100 mm/min

Condition	Standard	Unit	Value
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Electrical properties

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

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.