

TECHNICAL DATA SHEET

TECHNYL SAFE C216FC S30 NC
DOMAMID 6B30FC



TECHNYL SAFE C216FC S30 NC is a polyamide 6, 30 % glass beads reinforced, food contact approved for injection moulding. Designed to be used for food contact in industrial consumer good applications as well as appliance applications requiring excellent surface finish and low warpage.

General

Certifications	Food contact EU RoHS	Food contact FDA
Polymer type	PA6	
Feature	food contact approved low warpage	excellent surface finish
Applications	small appliance industrial applications	consumer applications large appliance
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA6-GB30
ISO 16396 designation	PA6,GB30,M,S14-040

Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.34
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.9 - 1.1
Molding shrinkage, normal		ISO 294-4, 2577	%	1.0 - 1.2
Melt volume-flow rate, MVR, 5.0 kg	275°C, 5kg	ISO 1133	cm ³ /10 min	80.0

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	4500 / -
Stress at break	5 mm/min	ISO 527-1/-2	MPa	72 / -
Strain at break	5 mm/min	ISO 527-1/-2	%	5 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	4100 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	110 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	40 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	4 / -
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	35 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	4 / -

*: **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	175
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	80
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	200

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	>= 650
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
Comparative tracking index	Solution A	IEC 60112	V	550.0
CTI performance level category		Sol A		PLC 1

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	230 - 260 °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.