

TECHNICAL DATA SHEET

TECHNYL A 216 S30 NC

TECHNYL A 216 S30 NC is a polyamide 66 reinforced with 30% of glass beads, standard viscosity, for injection moulding. This grade offers an excellent combination between thermal and mechanical properties.

General

Feature	Good surface finish	Low warpage
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications	Fasteners
Colors available	Natural	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66-GB30
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	Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.35
Water absorption	24 hr, 23°C	ISO 62	%	0.75
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.1
Molding shrinkage, normal		ISO 294-4, 2577	%	1.1

Mechanical properties

	Condition	Standard	Unit	dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	4500 / 2000
Stress at break		ISO 527-1/-2	MPa	80 / 40
Strain at break		ISO 527-1/-2	%	7 / 50
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	3850 / 1900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	135 / 65
Flexural strength, ASTM D790	2 mm/min	ASTM D790	MPa	128 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	25 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	3.5 / 5
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	2.5 / 5

Condition	Standard	Unit	Value
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Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	220
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	95

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	5E+012
Surface resistivity		IEC 62631-3-1	ohm	5E+014
Comparative tracking index	Solution A	IEC 60112	V	600
CTI performance level category		Sol A		PLC 0
Dielectric strength	1 mm	IEC 60243-1	kV/mm	30

Burning behaviour

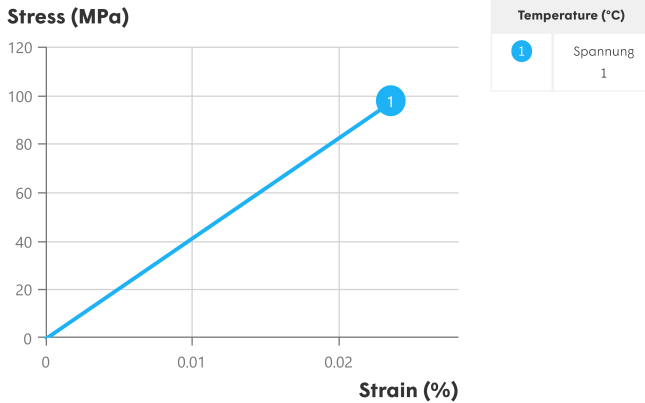
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Oxygen index			%	25
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100

*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	270 - 280 °C
Middle temperature	275 - 285 °C
Front temperature	280 - 290 °C
Recommended mould temperature	70 - 100 °C

Stress-strain, dry



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.

Disclaimer

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