

TECHNICAL DATA SHEET

TECHNYL A 216 GY 53N

TECHNYL A 216 GY 53N is an unreinforced polyamide 66, standard viscosity, for injection moulding.

General

Feature	Chemical resistant
Polymer type	PA66 (Polyamide 66)
Processing technology	Injection molding
Certification	RoHS EC 1907/2006 (REACH)
Applications	Consumer good application
Colors available	Grey
Forms	Pellets

Condition	Standard	Unit	Value
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Physical properties

Condition	Standard	Unit	Value
Density	ISO 1183	g/cm ³	1.14
Water absorption	24 hr, 23°C ISO 62	%	1.3

Mechanical properties

dam / cond.*

Condition	Standard	Unit	Value
Tensile modulus	1 mm/min ISO 527-1/-2	MPa	2800 / 1300
Stress at break	ISO 527-1/-2	MPa	45 / 30
Strain at break	ISO 527-1/-2	%	30 / 100
Yield stress	ISO 527-1/-2	MPa	75 / 50
Yield strain	ISO 527-1/-2	%	4 / 8
Flexural modulus, ISO 178	2 mm/min ISO 178	MPa	2800 / 1100
Flexural strength, ISO 178	2 mm/min ISO 178	MPa	105 / 60
Charpy notched impact strength	ISO 179/1eA	kJ/m ²	4 / 8

Thermal properties

Condition	Standard	Unit	Value
Melting temperature, 10°C/min	ISO 11357-1	°C	263
Temp. of deflection under load, 0.45 MPa	0.45 MPa ISO 75	°C	200
Temp. of deflection under load, 1.80 MPa	1.80 MPa ISO 75	°C	75

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 1.5 mm	1.5 mm	UL 94		V2
Flammability, 3.0 mm	3.0 mm	UL 94		V2
Glow-wire flammability index, GWFI, 0.75 mm	0.75 mm	IEC 60695-2-12	°C	650
Glow-wire ignition temperature, GWIT, 1.5 mm	1.5 mm	IEC 60695-2-13	°C	650
Oxygen index			%	26
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100

*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	80
Suggested max moisture	0.2 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	280 - 285 °C
Recommended mould temperature	60 - 80 °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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