TECHNYL®

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TECHNICAL DATA SHEET

TECHNYL A 216 GY R7035 LP

TECHNYL A 216 GY R7035 LP is an unreinforced polyamide 66, standard viscosity, for injection moulding. This grade offers all of the primary properties of unreinforced polyamide 66: thermal and mechanical properties, chemical resistance, impact and abrasion resistance.

General

Feature	UL V2	
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Connectors Industrial Applications	Consumer good application
Colors available	Black Grey	Natural
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66
ISO 16396 designation	PA66,M1,S14-030

	Condition	Standard	Unit	Value
Physical properties				
Density		ISO 1183	g/cm³	1.14
Humidity absorption	T=23°C, 50% RH	ISO 62	%	3.1
Water absorption	24 hr, 23°C	ISO 62	%	1.3
Water absorption, saturation			%	8.3

Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3200 / 1300
Stress at break		ISO 527-1/-2	MPa	70 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2800 / 1300
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	140 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	3 / -
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m²	3 / -

Thermal properties

	Condition	Standard	Unit	Value
Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	230
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	240

Burning behaviour

Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100

Test run at 23°C if not differently specified, DAM state (dry as moulded), valid for natural colored products.
**: conditioned according to ISO 1110*

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Suggested max moisture	0.2 %
Rear temperature	265 - 275 °C
Middle temperature	270 - 280 °C
Front temperature	280 - 285 °C
Recommended melt temperature	265 - 285 °C
Recommended mould temperature	60 - 80 °C

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

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