

TECHNICAL DATA SHEET

TECHNYL A 238F BK

TECHNYL A 238F BK is an unfilled polyamide 6.6 impact modified with an improved flowability, heat stabilized, for injection moulding. This grade offers excellent combination between rigidity and impact resistance at ambient temperature and flowability.

General

Feature	Heat-aging stabilized	Impact resistant
Polymer type	PA66 (Polyamide 66)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications	Fasteners
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA66
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.1
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.5
Water absorption	24 hr, 23°C	ISO 62	%	1.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	2.3 - 2.5
Molding shrinkage, normal		ISO 294-4, 2577	%	2.5 - 2.7

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	2500 / 960
Stress at break		ISO 527-1/-2	MPa	50 / 40
Strain at break		ISO 527-1/-2	%	30 / 200
Yield stress		ISO 527-1/-2	MPa	70 / 40
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2400 / 900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	45 / 35
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	85 / NB
Charpy impact strength, -30°C	-30°C	ISO 179/1eU		NB / NB
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	17 / NB
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m ²	9 / 7

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	263
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	186

Electrical properties

Dielectric strength	1 mm	IEC 60243-1	kV/mm	22
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Burning behaviour

Flammability, 1.5 mm	1.5 mm	UL 94		HB
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*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	80 °C
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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