

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

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66	
Feature	heat-aging stabilized	impact modified
Applications	automotive applications	fasteners
Colors available	black	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66
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Condition	Standard	Unit	Value
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Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.1
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	kJ/m ²	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

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
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

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100 mm/min

	Condition	Standard	Unit	Value
Electrical properties				
Dielectric strength	1 mm	IEC 60243-1	kV/mm	22.0

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.