

TECHNICAL DATA SHEET

TECHNYL D 238 V30 BK
(Previously TECHNYL EXTEN D 238 V30 BLACK)

TECHNYL D 238 V30 BK is a polyamide 6.10, reinforced with 30% of glass fibre, heat stabilized, impact modified, for injection moulding. This grade offers excellent chemical resistance, low water absorption, very good mechanical properties and moldability. It is a partially bio-sourced material.

General

Feature	Heat-aging stabilized Contains renewable content Low moisture absorption	Chemical resistant Good impact resistant
Polymer type	PA610 (Polyamide 610)	
Processing technology	Injection molding	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications	
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA610-GF30
ISO 16396 designation	PA610,GF30,M1,S14-070

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.25
Water absorption	24 hr, 23°C	ISO 62	%	0.3 - 0.35
Water absorption, saturation			%	1.9
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.25 - 0.35
Molding shrinkage, normal		ISO 294-4, 2577	%	0.7 - 0.8

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	Condition	Standard	Unit	Value
Mechanical properties			dam / cond.*	
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	7400 / 5100
Stress at break		ISO 527-1/-2	MPa	110 / 85
Strain at break		ISO 527-1/-2	%	4 / 6.3
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	6500 / 4400
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	150 / 115
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	75 / 80
Charpy impact strength, -30°C	-30°C	ISO 179/1eU	kJ/m²	80 / -
Charpy impact strength, -40°C	-40°C	ISO 179/1eU	kJ/m²	85 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	20 / 25
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m²	12 / -

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	222
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	215
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	195

Burning behaviour

Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100
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*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.15 %
Rear temperature	240 - 250 °C
Middle temperature	245 - 255 °C
Front temperature	250 - 260 °C
Recommended mould temperature	60 - 90 °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 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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