

TECHNICAL DATA SHEET

TECHNYL SHAPE DA 438CR BK
(Previously TECHNYL EXTEN DA 438CR BLACK)

TECHNYL SHAPE DA 438CR BK is a polyamide 6.10 / PA66 blend, unfilled, for extrusion purpose. It offers excellent compatibility with refrigerants, good resistance to deicing salts, and high burst pressure at temperature around 100°C. It is also suitable for thermoforming and welding. TECHNYL SHAPE DA 438CR BK has been specially design for HVAC lines or refrigerant lines for battery cooling. The results shown are based on an experimental grade. These results will be further enhanced and improved as more industrial lots are produced and statistical data are available.

General

Feature	Heat-aging stabilized Chemical resistant Excellent glycol resistant	High viscosity Contains renewable content Impact resistant
Polymer type	(PA610 + PA66) blend	
Processing technology	Extrusion	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Automotive Applications	Piping
Colors available	Black	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA610			
	Condition	Standard	Unit	Value
				Polymer
				Bio-circular/ Secondary Bio-based

Physical properties

Density		ISO 1183	g/cm³	1.1
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Mechanical properties

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Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3060 / -
Stress at break		ISO 527-1/-2	MPa	52 / -
Strain at break		ISO 527-1/-2	%	18 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	6 / -

Thermal properties

Melting temperature, 10°C/min		ISO 11357-1	°C	221
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*: conditioned according to ISO 1110

Condition	Standard	Unit	Value
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Processing conditions

Suggested max moisture	0.08 %
Feed zone temperature for extrusion	260 - 270 °C
Compression zone temperature for extrusion	275 - 290 °C
Front zone temperature for extrusion	275 - 290 °C
Die zone temperature for extrusion	265 - 285 °C

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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