

TECHNICAL DATA SHEET

**TECHNYL SHAPE D 437P NC**

(Previously TECHNYL EXTE<sup>N</sup> D 437P NATURAL)

TECHNYL SHAPE D 437P NC is an unfilled polyamide 6.10, medium viscosity, unfilled, plasticized, UV and heat stabilized, for extrusion applications. This polyamide 6,10 for extrusion is specially performing where high flexibility and toughness are requested. It is specially developed for automotive and other applications where a long term high temperature usage is requested. 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	Extrusion	
Certification	RoHS	EC 1907/2006 (REACH)
Applications	Piping	
Colors available	Natural	
Forms	Pellets	

**Product identification**

ISO 1043 abbreviation	PA610
-----------------------	-------

Condition Standard Unit Value

**Physical properties**

Density		ISO 1183	g/cm <sup>3</sup>	1.09
Water absorption	24 hr, 23°C	ISO 62	%	0.65
Water absorption, saturation			%	1.9
Molding shrinkage, parallel		ISO 294-4, 2577	%	1.9
Molding shrinkage, normal		ISO 294-4, 2577	%	1.9

**Mechanical properties**

dam / cond.\*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	820 / 450
Stress at break		ISO 527-1/-2	MPa	44 / 40
Strain at break		ISO 527-1/-2	%	200 / 200
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	720 / 470
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	14 / 140
Charpy notched impact strength, -30°C	-30°C	ISO 179/1eA	kJ/m <sup>2</sup>	3 / -

TECHNICAL DATA SHEET

TECHNYL SHAPE D 437P NC

	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	215
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	128
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	52

\*: conditioned according to ISO 1110

**Processing conditions**

Drying temperature/time	8H at 80°C with dry air, dew point -35°C
Suggested max moisture	0.08 %
Feed zone temperature for extrusion	200 - 220 °C
Compression zone temperature for extrusion	210 - 230 °C
Front zone temperature for extrusion	215 - 235 °C
Die zone temperature for extrusion	210 - 230 °C
Recommended extrusion temperature	200 - 235 °C

**Disclaimer**

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufacturers in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.