



TECHNYL EXTEN D 437P NATURAL

(provisional data Sheet)

Description

TECHNYL® eXten D 437P Natural is a high viscosity, unfilled, plasticized, UV and heat stabilized PA6.10 for extrusion applications. Technyl® eXten D 437P is a partially bio-sourced material. This material is available in natural.

Key Properties

Translucency
UV stabilised
High impact at low temperature
High flexibility

Benefits

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.

Applications

Extrusion pipes and tubing applications.

Properties

Typical values of properties are for natural grades

	Standards	Unit	Values	
			d.a.m.	Cond.
Physical				
Water absorption(24h at 23°C)	ISO 62	%	0,65	
Water absorption(At saturation)	ISO 62	%	1,90	
Density	ISO 1183/A	g/cm3	1,09	
Molding shrinkage Parallel	ISO 294-4	%	2,22	
Molding shrinkage normal or perpendicular	ISO 294-4	%	2,41	
Molding Shrinkage Isotropy			0,92	
Mechanical				
Tensile Modulus	ISO 527 Type 1A	MPa	820	630
Tensile strength at yield	ISO 527 Type 1A	MPa	40	35
Tensile strength at break	ISO 527 Type 1A	MPa	44	40
Elongation at break	ISO 527 Type 1A	%	> 200	> 200
Flexural modulus	ISO 178	MPa	720	470
Charpy notched impact strength (23 °C)	ISO 179/1eA	kJ/m2	14	135
Charpy notched impact strength (-30 °C)	ISO 179/1eA	kJ/m2	3	
Charpy unnotched impact strength (23 °C)	ISO 179/1eU	kJ/m2	NB	NB
Charpy unnotched impact strength (-30 °C)	ISO 179/1eU	kJ/m2	NB	NB
Shore D Hardness	ISO 868	SHORE D	68	
Thermal				
Melting Temperature	ISO 11357	°C	215 - 220	
Heat deflection temperature (1,8 MPa)	ISO 75/Af	°C	52	
Specific				
Identification code				PA610-I

d.a.m. = dry as moulded

Cond = conditioned

Processing Guide

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.

Recommended Maximum water content: 0,10 %

Drying conditions: 8h at 80°C with dry air, dew point -35°C

Extrusion parameters

Temperature (°C)	
Feeding zone:	200 - 220 °C
Compression zone:	210 - 230 °C
Front zone:	215 - 235 °C
Die:	210 - 230 °C

Extruder design

Screw type	Pa type (with short transition length, 4D or less) recommended but standard type (with medium transition length, 5 to 7D) acceptable in most cases.
Screw length	Typical L/D~24-28
Screw compression rate	3 to 4:1

Steel advice for tools	For unfilled polyamide, Rhodia recommends the use of high alloy steel with a weak chromium content. For example: 35NC6 or 35CD4.
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Disclaimer

The information contained in this document is given in good faith based on our current knowledge. It is only an indication and it is in no way binding. This information must on no account be used as a substitutive for necessary prior tests which alone can ensure that a product is suitable for a given use. ANY WARRANTY OF PRODUCT PERFORMANCE, MERCHANDABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS EXPRESSLY EXCLUDED. Users are responsible for ensuring compliance with local legislation and for obtaining the necessary certifications and authorizations. Users are requested to check that they are in possession of the latest version of this document, and Rhodia is at their disposal to supply any additional information.

Safety information

Detailed information regarding safety are available on the safety data sheet (SDS).
SDS is sent with the first material order, or available by contacting our customer services

Regulations compliance

Grades produced or imported in Europe comply with directive 453/2010/EC, which amends REACH directive 1907/2006/EC

This grade complies with RoHS directive 2002/95/EC

Unless specified, this grade is not suitable for food contact, medical devices or toy applications

Customer services

Our customer services are not only concerned with manufacturing and supply of Engineering Plastics products. We are available to assist our customers in finding technical solutions that meet their requirements. Specific support is in particular offered on:

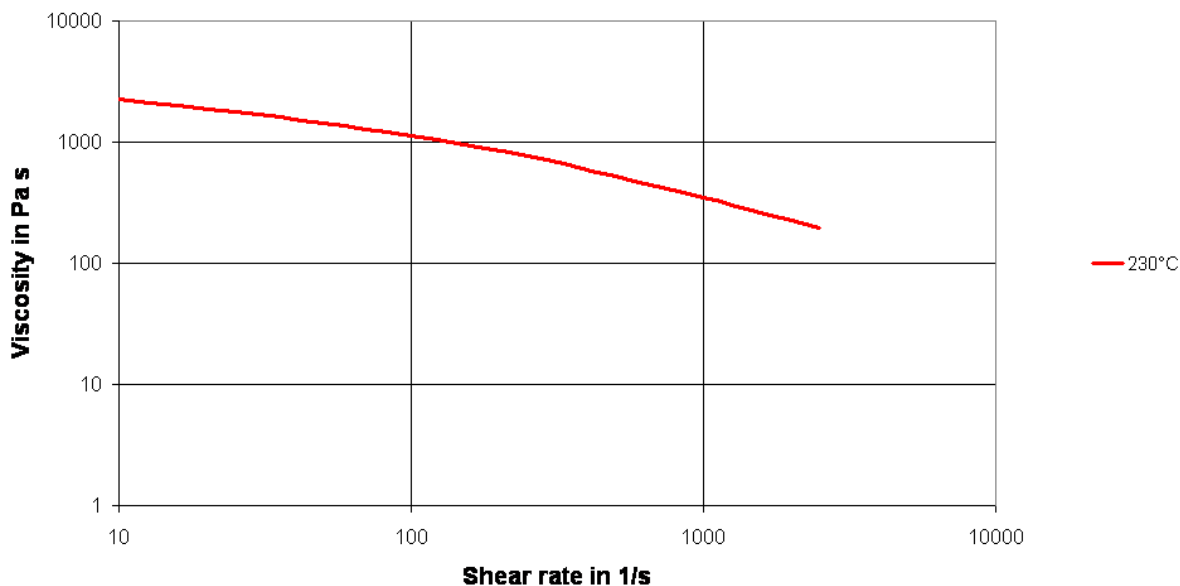
- Material selection
- Material testing
- Parts design advice, training for design engineers
- Part testing
- Processing through different technologies
- Assembly and post-processing technology expertise
- Parts optimization through Computer Aided Design

You can find more information on Rhodia Product range on our internet product finder at the following address:

http://www.rhodia.com/en/markets_and_products/product_finder

Viscosity-shear rate

Viscosity-shear rate
Technyl D 437P



Stress-strain

Stress-Strain (dry)
Technyl D 437P

