TECHNYL eXten® D 437P NATURAL

TECHNICAL DATA SHEET

Revised: January, 2018

TECHNYL eXten® D 437P Natural 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

Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Additive	• Heat Stabilizer • Plasticizer	• UV Stabilizer
Key Benefits	• Partially Bio-based • Heat Stabilized (Inorganic) • Good Impact Resistance	• Low Moisture Absorption • Translucency • Good UV Resistance
Applications	• Coolant pipes	• Pipes
Certification/Compliance	• EC 1907/2006 (REACH)	
RoHS Compliance	• RoHS Compliant	
Colors Available	• Natural Color	
Forms	• Pellets	
Processing Method	• Extrusion	
Resin ID (ISO 1043)	• PA610	

PROPERTIES

Typical values of properties are for Natural grades

Physical	Dry	Conditioned	Unit	Test Method
Molding Shrinkage				ISO 294-4
Across Flow	2.0		%	
Flow	2.0		%	
Water Absorption				ISO 62
24 hr, 23°C	0.65		%	
Saturation, 23°C	1.9		%	
Equilibrium, 23°C, 50% RH	1.1		%	
Density	1.09		g/cm³	ISO 1183/A

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Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	820	450	MPa	ISO 527-2/1A
Tensile Stress				ISO 527-2/1A
Yield, 23°C	40	35	MPa	
Break, 23°C	44	40	MPa	
Tensile Strain (Break, 23°C)	> 200	> 200	%	ISO 527-2
Flexural Modulus (23°C)	720	470	MPa	ISO 178
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	3.0		kJ/m²	
23°C	14	140	kJ/m²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	No Break	No Break		
23°C	No Break	No Break		

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	128		°C	ISO 75-2/Bf
1.8 MPa, Unannealed	52		°C	ISO 75-2/Af
Melting Temperature	215 to 220		°C	ISO 11357-3

Extrusion	Dry	Unit
Suggested Max Moisture	0.080	%
Cylinder Zone 1 Temp.	200 to 220	°C
Cylinder Zone 2 Temp.	210 to 230	°C
Cylinder Zone 3 Temp.	215 to 235	°C
Die Temperature	210 to 230	°C

Extrusion 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.

DISCLAIMER

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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

This product is not intended to be used for the following regulated market: food contact, drinking water, toys, cosmetics or medical devices.

This grade complies with ROHS Directive 2011/65/EU and 2015/863 as amended.

Grades produced or imported in Europe comply with REACH directive 1907/2006/EC as amended.

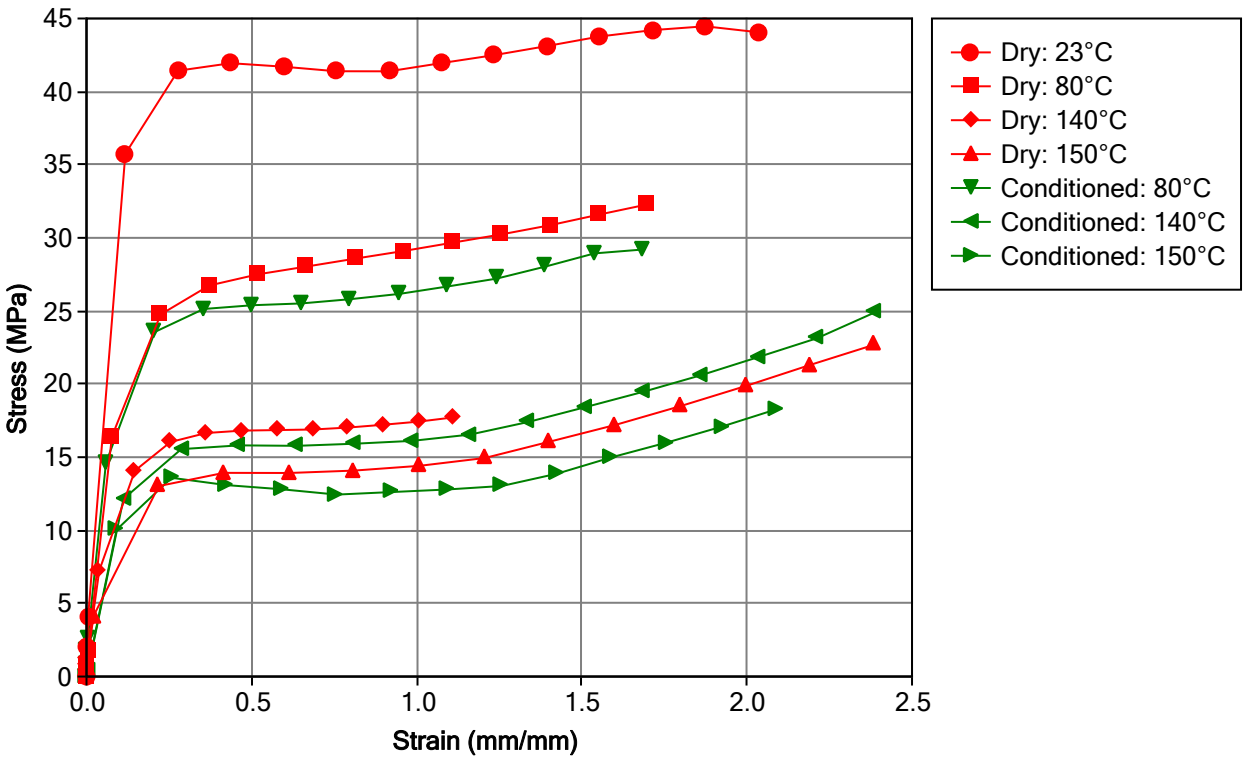
CUSTOMER SERVICES

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
- Design simulation
- Processing through different technologies
- Assembly and post-processing technology expertise
- Parts optimization through Computer Aided Design

You can find more information on Solvay Product range on our internet product finder at the following address: http://www.technyl.com

MULTIPOINT DATA

Isothermal Stress vs. Strain (ISO 11403-1)



Notes

Typical properties: these are not to be construed as specifications.