TECHNYL®

TECHNYL® A 238J1 NATURAL

TECHNICAL DATA SHEET

Revised: September, 2018

TECHNYL ® A 238J1 Natural is an unfilled polyamide 6.6, heat stabilized, impact modified, for injection moulding. This grade offers excellent combination between rigidity and impact resistance at ambient temperature.

GENERAL

Material Status	• Commercial: Active	
Availability	• Latin America	
Additive	• Heat Stabilizer	• Impact Modifier
Key Benefits	• Heat Aging Resistance • Heat Stabilized (Inorganic)	• High Impact Resistance • Good Mold Release
Applications	• Automotive applications • Cable ties	• Connectors • Consumer and Industrial applications
RoHS Compliance	• RoHS Compliant	
Colors Available	• Black	• Natural Color
Forms	• Pellets	
Processing Method	• Injection Molding	

PROPERTIES

Typical values of properties are for Natural grades

Physical	Dry	Conditioned	Unit	Test Method
Water Absorption (24 hr, 23°C)	1.1		%	ISO 62
Density	1.10		g/cm³	ISO 1183

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	3000	800	MPa	ISO 527-2
Tensile Stress				ISO 527-2
Yield	80	45	MPa	
Break	70		MPa	
Tensile Strain (Break)		> 90	%	ISO 527-2
Flexural Modulus	2600		MPa	ISO 178
Flexural Stress	100	40.0	MPa	ISO 178
Charpy Notched Impact Strength				ISO 179
-30°C	10		kJ/m²	
23°C	10	75	kJ/m²	

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/Af
1.8 MPa, Unannealed	70		°C	
Melting Temperature	263		°C	ISO 11357-3

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Electrical	Dry	Conditioned	Unit	Test Method
Electric Strength				IEC 60243-1
23°C, 0.800 mm	35		kV/mm	
23°C, 2.00 mm	22		kV/mm	
Relative Permittivity (23°C, 2.00 mm, 1 MHz)	3.20			IEC 60250
Dissipation Factor (1 MHz)	0.32			IEC 60250

PROCESSING

Injection	Dry	Unit
Drying Temperature	80	°C
Suggested Max Moisture	0.20	%
Rear Temperature	265 to 275	°C
Middle Temperature	270 to 280	°C
Front Temperature	280 to 285	°C
Mold Temperature	60 to 80	°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 mini -20°C. Recommended time 2-4h

Injection Advice:

- For unfilled polyamides, Solvay 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

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.

CUSTOMER SERVICES

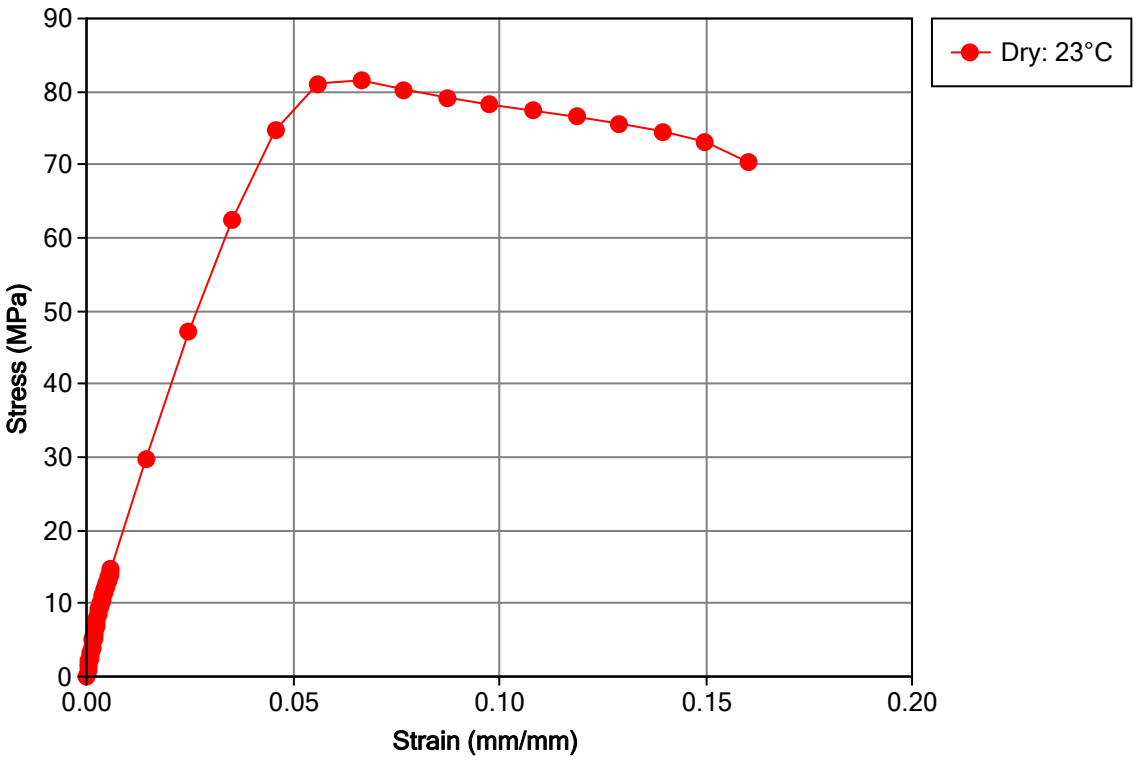
Our customer services are not only concerned with manufacturing and supply of Engineering Plastics products. We are available to assist our customers in finding technical solutions that meet their requirements. Specific support is in particular offered on:

- 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.

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