TECHNYL®

TECHNYL® C 246M NATURAL

TECHNICAL DATA SHEET

Revised: June, 2018

TECHNYL® C 246M Natural is an unreinforced polyamide 6, with high impact resistance, for injection moulding. This grade offers high impact strength, flexibility and good surface aspect.

GENERAL

Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific	• Europe
Additive	• Impact Modifier	
Key Benefits	• High Impact Resistance • Low Temperature Impact Resistance	• Good Mold Release • Good Surface Finish
Applications	• Consumer and Industrial applications • Outdoors activities	• Ski bindings • Sports equipment
Certification/Compliance	• EC 1907/2006 (REACH)	
RoHS Compliance	• RoHS Compliant	
Colors Available	• Natural Color	
Forms	• Pellets	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA6	

PROPERTIES

Typical values of properties are for Natural grades

Physical	Dry	Conditioned	Unit	Test Method
Molding Shrinkage				ISO 294-4
Across Flow	1.9		%	
Flow	1.9		%	
Water Absorption (24 hr, 23°C)	1.2		%	ISO 62
Density	1.06		g/cm³	ISO 1183/A

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	2000	580	MPa	ISO 527-2/1A
Tensile Stress (Yield, 23°C)	50	28	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	> 100	> 100	%	ISO 527-2
Flexural Modulus (23°C)	1800	600	MPa	ISO 178
Charpy Notched Impact Strength (23°C)	65	120	kJ/m²	ISO 179/1eA
Notched Izod Impact Strength (23°C)	45	80	kJ/m²	ISO 180

Solvay Engineering Plastics
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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/Af
1.8 MPa, Unannealed	60		°C	
Melting Temperature	222		°C	ISO 11357-3

Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+12	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+11	ohms·cm	IEC 60093
Electric Strength (2.00 mm)		18	kV/mm	IEC 60243-1
Relative Permittivity	3.50	4.00		IEC 60250
Dissipation Factor	0.020	0.12		IEC 60250

PROCESSING

Injection	Dry	Unit
Drying Temperature	80	°C
Suggested Max Moisture	0.20	%
Rear Temperature	230 to 235	°C
Middle Temperature	235 to 240	°C
Front Temperature	235 to 245	°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

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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

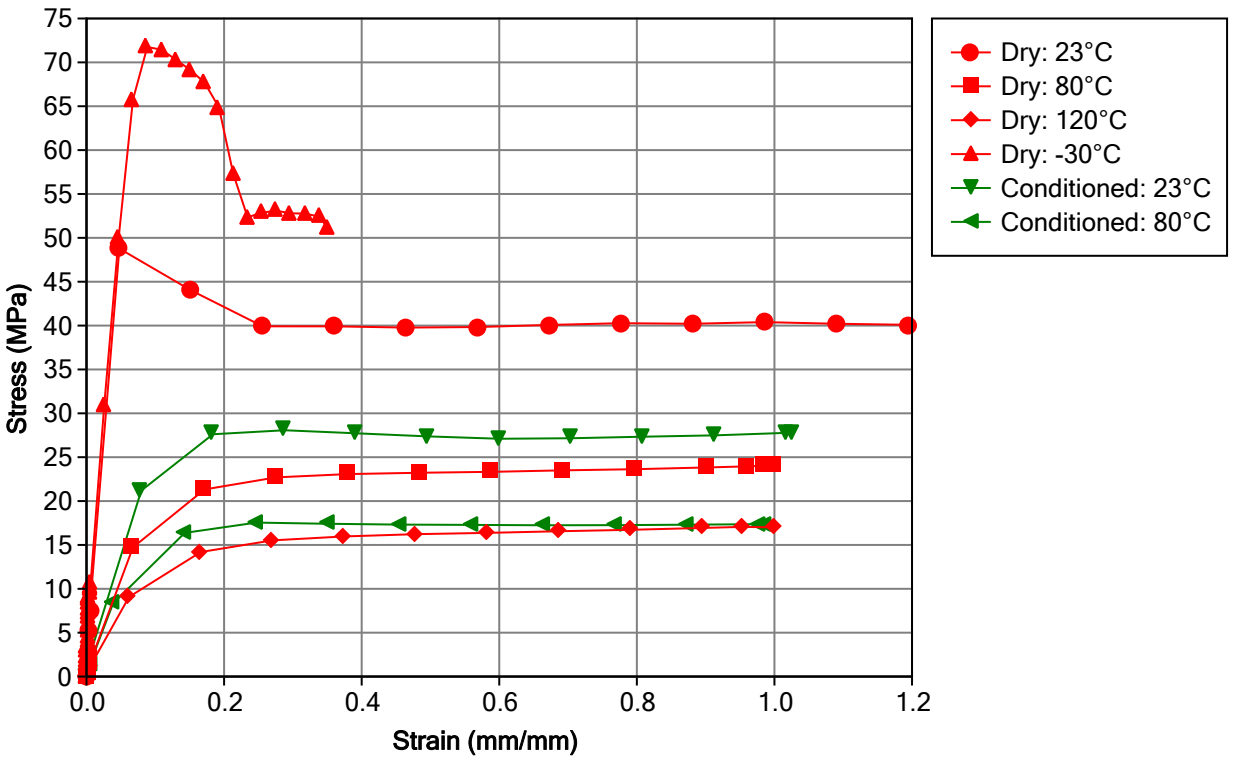
Our customer services are not only concerned with manufacturing and supply of Engineering Plastics products. We are available to assist our customers in finding technical solutions that meet their requirements. Specific support is in particular offered on:

- 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)



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Notes

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

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