TECHNYL®

TECHNYL® C 402M NATURAL

TECHNICAL DATA SHEET

Revised: September, 2017

TECHNYL® C 402M Natural is an unreinforced polyamide 6, high viscosity, for extrusion. This grade offers high flexibility and high impact performance.

GENERAL

Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific	• Europe • North America
Key Benefits	• High Impact Resistance	• High Viscosity
Applications	• Consumer and Industrial applications • Films	• Structural and Casing parts • Wiring & cables applications
Certification/Compliance	• EC 1907/2006 (REACH)	
RoHS Compliance	• RoHS Compliant	
Colors Available	• Natural Color	
Forms	• Pellets	
Processing Method	• Extrusion	
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	1.5		%	
Flow	1.5		%	
Water Absorption (24 hr, 23°C)	1.9		%	ISO 62
Density	1.14		g/cm³	ISO 1183/A

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	1200	550	MPa	ISO 527-2/1A
Tensile Stress (Yield, 23°C)	55	35	MPa	ISO 527-2/1A
Flexural Modulus (23°C)	1000	530	MPa	ISO 178
Flexural Stress (23°C)	50.0	30.0	MPa	ISO 178
Charpy Notched Impact Strength (23°C)	18	No Break	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	No Break			ISO 179/1eU
Notched Izod Impact Strength (23°C)	15		kJ/m²	ISO 180

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/Af
1.8 MPa, Unannealed	65		°C	
Melting Temperature	222		°C	ISO 11357-3

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Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+13	ohms·cm	IEC 60093
Electric Strength (2.00 mm)		18	kV/mm	IEC 60243-1
Relative Permittivity	3.60	4.10		IEC 60250
Dissipation Factor	0.021	0.12		IEC 60250

Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.6 mm)	HB			UL 94

Extrusion	Dry	Unit
Suggested Max Moisture	0.080	%
Cylinder Zone 1 Temp.	225 to 240	°C
Cylinder Zone 2 Temp.	230 to 250	°C
Cylinder Zone 3 Temp.	235 to 255	°C
Die Temperature	230 to 250	°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

Notes

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

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