

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

GENERAL

Material Status	• Commercial: Discontinued	
Availability	• Africa & Middle East	• Europe
Additive	• Impact Modifier	
Key Benefits	• High Impact Resistance	• Low Temperature Impact Resistance
Applications	• Consumer and Industrial applications • Furnitures • Power tools	• Sports equipment • White appliances
Certification/Compliance	• EC 1907/2006 (REACH)	
RoHS Compliance	• RoHS Compliant	
Colors Available	• Black	• Natural Color
Forms	• Pellets	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA6	

PROPERTIES

Typical values of properties are for Natural grades

Physical	Dry Unit	Test Method
Water Absorption (24 hr, 23°C)	1.0 %	ISO 62
Density	1.06 g/cm ³	ISO 1183/A
Mechanical	Dry Unit	Test Method
Tensile Modulus (23°C)	1900 MPa	ISO 527-2/1A
Tensile Stress		ISO 527-2/1A
Yield, 23°C	45 MPa	
Break, 23°C	46 MPa	
Tensile Strain		ISO 527-2
Yield, 23°C	4.0 %	
Break, 23°C	120 %	
Flexural Modulus (23°C)	1700 MPa	ISO 178
Flexural Stress (23°C)	64.0 MPa	ISO 178
Charpy Notched Impact Strength		ISO 179/1eA
-30°C	23 kJ/m ²	
23°C	110 kJ/m ²	
Charpy Unnotched Impact Strength (23°C)	No Break	ISO 179/1eU

Mechanical	Dry Unit	Test Method
Notched Izod Impact Strength (23°C)	110 kJ/m²	ISO 180

Thermal	Dry Unit	Test Method
Heat Deflection Temperature 1.8 MPa, Unannealed	51 °C	ISO 75-2/Af
Melting Temperature	220 °C	ISO 11357-3

PROCESSING

Injection	Dry Unit
Drying Temperature	80 °C
Suggested Max Moisture	0.20 %
Rear Temperature	240 to 260 °C
Middle Temperature	250 to 270 °C
Front Temperature	260 to 280 °C
Mold Temperature	70 to 90 °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.

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, MERCHANTABILITY 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 Solvay 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

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

Notes

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