TECHNYL®

TECHNYL® B 230 GREY 1421 H

TECHNICAL DATA SHEET

Revised: May, 2018

TECHNYL® B 230 Grey 1421 H is an unfilled copolyamide 6.6/6, impact modified, for injection moulding. This product offers an excellent notched impact resistance, even at low temperature.

GENERAL

Material Status	• Commercial: Active	
Availability	• Asia Pacific	
Additive	• Impact Modifier	
Key Benefits	• Good Impact Resistance • Good Mold Release	• Good Surface Finish
Applications	• Clips & Fasteners • Connectors • Shoe soles	• Ski bindings • Sports equipment
Colors Available	• Black • Grey	• Natural Color
Forms	• Pellets	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA66/6	

PROPERTIES

Typical values of properties are for Grey grades

Physical	Dry	Conditioned	Unit	Test Method
Water Absorption (24 hr, 23°C)	1.4		%	ISO 62
Density	1.09		g/cm³	ISO 1183/A

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	2300	900	MPa	ISO 527-2/1A
Tensile Strength				
Yield, 23°C	65		MPa	ASTM D638
Yield, 23°C	60	45	MPa	ISO 527-2/1A
Break, 23°C	50	40	MPa	ISO 527-2/1A
Tensile Strain				
Yield, 23°C	5.0	12	%	ISO 527-2
Break, 23°C	70		%	ASTM D638
Break, 23°C	50	250	%	ISO 527-2
Flexural Modulus				
23°C	2400		MPa	ASTM D790
23°C	2000	700	MPa	ISO 178

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Mechanical	Dry	Conditioned	Unit	Test Method
Flexural Strength				
23°C	85.0		MPa	ASTM D790
23°C	80.0	27.0	MPa	ISO 178
Charpy Notched Impact Strength (23°C)	8.0	30	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	No Break			ISO 179/1eU
Notched Izod Impact				
23°C	140		J/m	ASTM D256
23°C	7.0	18	kJ/m²	ISO 180

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/Af
1.8 MPa, Unannealed	62		°C	
Melting Temperature	242		°C	ISO 11357-3

Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	5.0E+15	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+16	1.0E+14	ohms·cm	IEC 60093
Electric Strength (2.00 mm)	20	16	kV/mm	IEC 60243-1
Comparative Tracking Index				IEC 60112
Solution A	600	600	V	
Solution B	475		V	

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

PROCESSING

Injection	Dry	Unit
Drying Temperature	80	°C
Suggested Max Moisture	0.20	%
Rear Temperature	250 to 260	°C
Middle Temperature	255 to 265	°C
Front Temperature	265 to 275	°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 reinforced polyamides, Solvay recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered.

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.

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.