TECHNYL®

TECHNYL® B 218 MX30 NATURAL

TECHNICAL DATA SHEET

Revised: April, 2017

TECHNYL® B 218 MX30 Natural is a polyamide 66/6, reinforced with 30% of mineral filler, heat stabilized, for injection moulding.

GENERAL

Material Status	• Commercial: Active	
Availability	• North America	
Filler / Reinforcement	• Mineral, 30% Filler by Weight	
Additive	• Heat Stabilizer	
Key Benefits	• Heat Stabilized (Inorganic) • Good Surface Finish	• Low Warpage
Applications	• Connectors • Head lamp bezels	• White appliances • Wiring & cables applications
Certification/Compliance	• UL QMFZ2	
RoHS Compliance	• RoHS Compliant	
Colors Available	• Natural Color	
Forms	• Pellets	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA66/6-MD30	

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	1.38		g/cm³	ISO 1183/A

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	7400	4000	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	80	50	MPa	ISO 527-2/1A
Tensile Strain				ISO 527-2
Yield, 23°C	4.0	12	%	
Break, 23°C	4.0		%	
Flexural Modulus (23°C)	6000	2600	MPa	ISO 178
Charpy Notched Impact Strength (23°C)	3.0	6.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	40	110	kJ/m²	ISO 179/1eU
Notched Izod Impact Strength (23°C)	3.0	5.0	kJ/m²	ISO 180

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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				ISO 75-2/Af
1.8 MPa, Unannealed	180		°C	
Melting Temperature	242		°C	ISO 11357-3

Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+12	ohms	IEC 60093
Volume Resistivity	6.0E+14	1.0E+14	ohms·cm	IEC 60093
Electric Strength (2.00 mm)	35	30	kV/mm	IEC 60243-1
Dissipation Factor	0.020	0.080		IEC 60250
Comparative Tracking Index				IEC 60112
Solution A	550	550	V	
Solution B	500		V	

Flammability	Dry	Conditioned	Unit	Test Method
Glow Wire Flammability Index (1.6 mm)	650		°C	IEC 60695-2-12
Oxygen Index	26		%	ISO 4589-2

PROCESSING

Injection	Dry	Unit
Drying Temperature	80	°C
Suggested Max Moisture	0.20	%
Rear Temperature	255 to 265	°C
Middle Temperature	260 to 270	°C
Front Temperature	270 to 280	°C
Mold Temperature	70 to 100	°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.

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

Notes

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