TECHNYL®

TECHNYL® C 218L V30 GREY 3385

TECHNICAL DATA SHEET

Revised: February, 2018

TECHNYL® C 218L V30 Grey 3385 is a polyamide 6 reinforced with 30% glass fibre and UV stabilized for injection moulding. The product offers an excellent combination between thermal and mechanical properties.

GENERAL

Material Status	• Commercial: Active	
Availability	• Latin America	
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight	
Additive	• Heat Stabilizer	• UV Stabilizer
Key Benefits	• Good Dimensional Stability • Heat Stabilized (Inorganic)	• Good UV Resistance
Applications	• Automotive applications • Door handles	• External rear mirror bracket • Interior trims and switches
Colors Available	• Black	• Grey
Forms	• Pellets	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA6-GF30	

PROPERTIES

Typical values of properties are for Grey grades

Physical	Dry	Conditioned	Unit	Test Method
Molding Shrinkage				ISO 294-4
Across Flow	0.80		%	
Flow	0.15		%	
Water Absorption				ISO 62
24 hr, 23°C	1.7		%	
Saturation, 23°C	6.1		%	
Equilibrium, 23°C, 50% RH	2.2		%	
Density	1.35		g/cm³	ISO 1183/A

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	9300	6100	MPa	ISO 527-2/1A
Tensile Strength				
Break, 23°C	155	90	MPa	ASTM D638
Break, 23°C	140	95	MPa	ISO 527-2/1A
Tensile Elongation				
Break, 23°C	2.7	7.6	%	ASTM D638
Break, 23°C	2.7	7.5	%	ISO 527-2

Solvay Engineering Plastics
www.solvay.com - www.technyl.com

Tel: 00 800 55 400 600
technyl-emea@solvay.com - Europe, Middle East, Africa
technyl-apac@solvay.com - Asia Pacific
technyl-americas@solvay.com - Americas

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Mechanical	Dry	Conditioned	Unit	Test Method
Flexural Modulus				
23°C	8500		MPa	ASTM D790
23°C	7700	5700	MPa	ISO 178
Flexural Strength				
23°C	230		MPa	ASTM D790
23°C	210	155	MPa	ISO 178
Charpy Notched Impact Strength (23°C)	8.0	13	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	55	75	kJ/m²	ISO 179/1eU
Notched Izod Impact				
23°C	110		J/m	ASTM D256
23°C	8.0	15	kJ/m²	ISO 180
Unnotched Izod Impact (Area) (23°C)	65.0	85.0	kJ/m²	ASTM D256
Unnotched Izod Impact Strength (23°C)	65	70	kJ/m²	ISO 180/1U

Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	220		°C	ISO 75-2/Bf
1.8 MPa, Unannealed	205		°C	ASTM D648
1.8 MPa, Unannealed	202		°C	ISO 75-2/Af
Melting Temperature	222		°C	ISO 11357-3

Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+15	1.0E+11	ohms·cm	IEC 60093
Electric Strength (2.00 mm)		22	kV/mm	IEC 60243-1
Relative Permittivity	3.80	4.50		IEC 60250
Comparative Tracking Index (Solution A)	550	475	V	IEC 60112

Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (3.2 mm)	HB			UL 94
Glow Wire Flammability Index (1.6 mm)	650		°C	IEC 60695-2-12
Oxygen Index	23		%	ISO 4589-2

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	240 to 250	°C
Mold Temperature	60 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 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.
- The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design

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

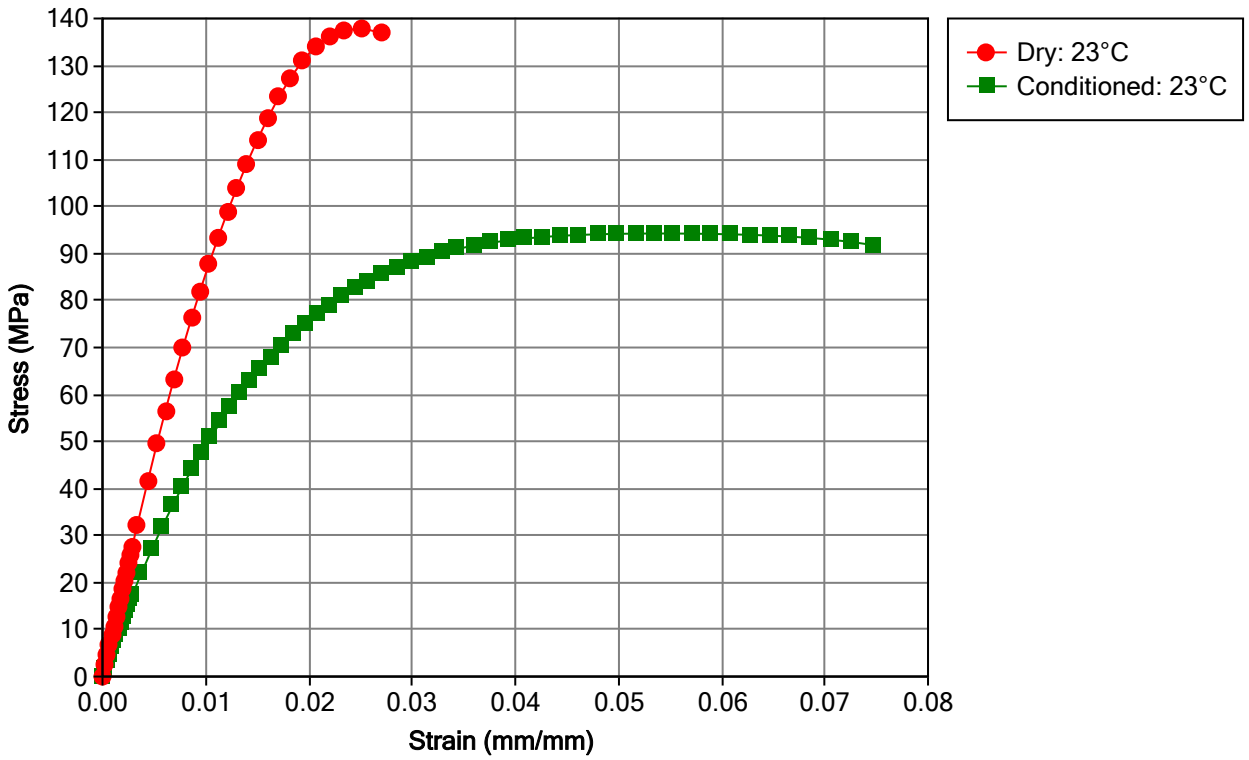
Our customer services are not only concerned with manufacturing and supply of Engineering Plastics products. We are available to assist our customers in finding technical solutions that meet their requirements. Specific support is in particular offered on:

- 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

MULTIPOINT DATA

Isothermal Stress vs. Strain (ISO 11403-1)



Notes

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

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Tel: 00 800 55 400 600
technyl-emea@solvay.com - Europe, Middle East, Africa
technyl-apac@solvay.com - Asia Pacific
technyl-americas@solvay.com - Americas