TECHNYL®

TECHNYL® C 216 V55 BLACK

TECHNICAL DATA SHEET

Revised: February, 2019

TECHNYL® C 216 V55 Black is a polyamide 6, reinforced with 55% of glass fibre, for injection moulding. This grade offers high mechanical strength, good surface aspect for injection moulding.

GENERAL

Material Status	• Commercial: Active	
Availability	• Asia Pacific	
Filler / Reinforcement	• Glass Fiber, 55% Filler by Weight	
Key Benefits	• Good Mold Release	• High Stiffness
Applications	• Bicycles component • Consumer and Industrial applications	• Motorbikes handle
RoHS Compliance	• RoHS Compliant	
Colors Available	• Black	
Forms	• Pellets	
Processing Method	• Injection Molding	
Resin ID (ISO 1043)	• PA6-GF55	

PROPERTIES

Typical values of properties are for Black grades

Physical	Dry	Conditioned	Unit	Test Method
Molding Shrinkage				ISO 294-4
Across Flow	0.55		%	
Flow	0.25		%	
Water Absorption				ISO 62
24 hr, 23°C	0.70		%	
Equilibrium, 23°C, 50% RH	1.5		%	
Density	1.58		g/cm³	ISO 1183/A

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	20000	10000	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	225	135	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	2.5	4.0	%	ISO 527-2
Flexural Modulus (23°C)	17000	9500	MPa	ISO 178
Flexural Stress (23°C)	260	180	MPa	ISO 178
Charpy Notched Impact Strength (23°C)	17		kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	80		kJ/m²	ISO 179/1eU

Thermal	Dry	Conditioned	Unit	Test Method
Melting Temperature	222		°C	ISO 11357-3

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Electrical	Dry	Conditioned	Unit	Test Method
Relative Permittivity (23°C, 2.00 mm, 1 MHz)	4.10			IEC 60250
Dissipation Factor (1 MHz)	0.029			IEC 60250

PROCESSING

Injection	Dry	Unit
Drying Temperature	80	°C
Suggested Max Moisture	0.20	%
Rear Temperature	235 to 240	°C
Middle Temperature	240 to 250	°C
Front Temperature	250 to 260	°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.

This grade complies with ROHS Directive 2011/65/EU and 2015/863 as amended.

CUSTOMER SERVICES

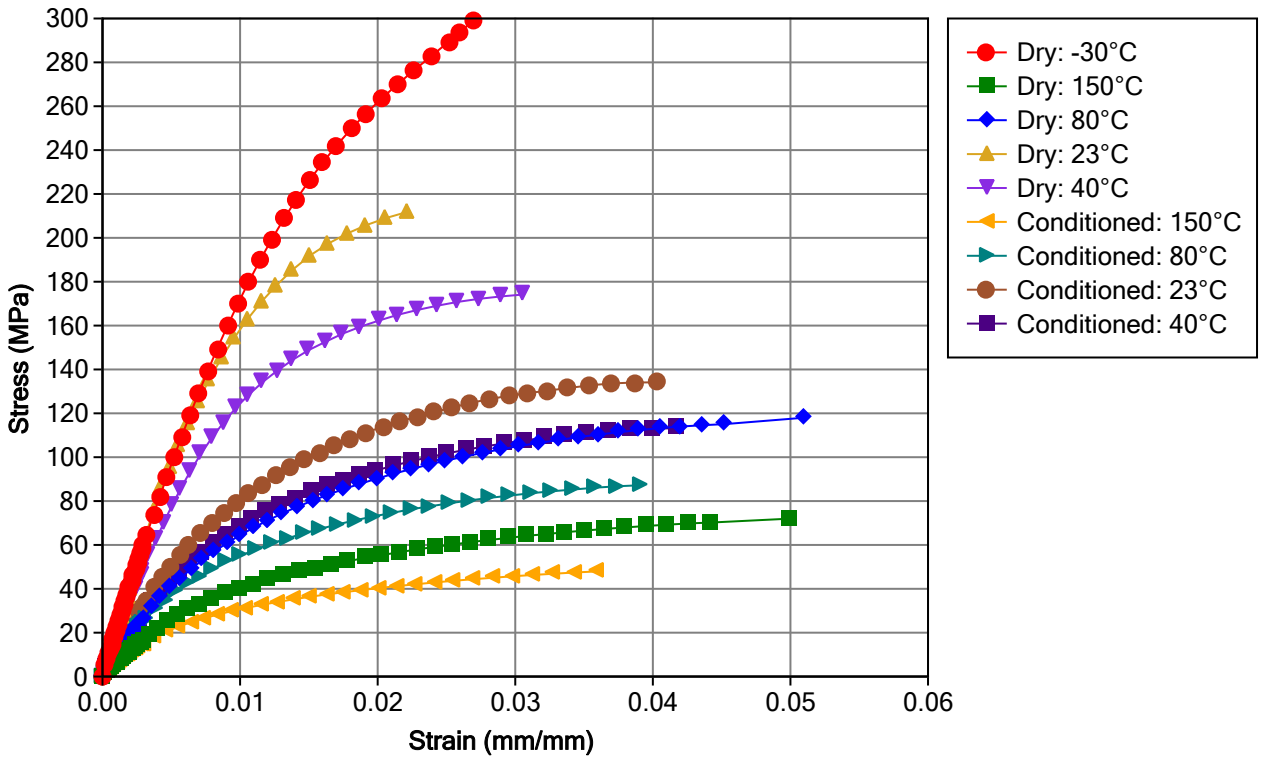
Our customer services are not only concerned with manufacturing and supply of Engineering Plastics products. We are available to assist our customers in finding technical solutions that meet their requirements. Specific support is in particular offered on:

- 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

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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