

Technyl® C 216 V50

PA6-GF50

Solvay Engineering Plastics

Product Texts

Polyamide 6, 50 % glass fibre reinforced

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	14600 / 8600	MPa	ISO 527-1/-2
Stress at break	225 / -	MPa	ISO 527-1/-2
Strain at break	2 / -	%	ISO 527-1/-2
Charpy impact strength (+23°C)	107 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	19 / -	kJ/m ²	ISO 179/1eA

Thermal properties**dry / cond****Unit****Test Standard**

ISO Data	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	222 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	55 / *	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	215 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	220 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	18 / *	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10

Electrical properties**dry / cond****Unit****Test Standard**

ISO Data	dry / cond	Unit	Test Standard
Relative permittivity, 1MHz	3.8 / 4.5	-	IEC 60250
Dissipation factor, 1MHz	200 / -	E-4	IEC 60250
Volume resistivity	1E13 / 1E9	Ohm*m	IEC 60093
Surface resistivity	* / 1E11	Ohm	IEC 60093
Electric strength	- / 22	kV/mm	IEC 60243-1
Comparative tracking index	475 / -	-	IEC 60112

Other properties**dry / cond****Unit****Test Standard**

ISO Data	dry / cond	Unit	Test Standard
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1560 / -	kg/m ³	ISO 1183

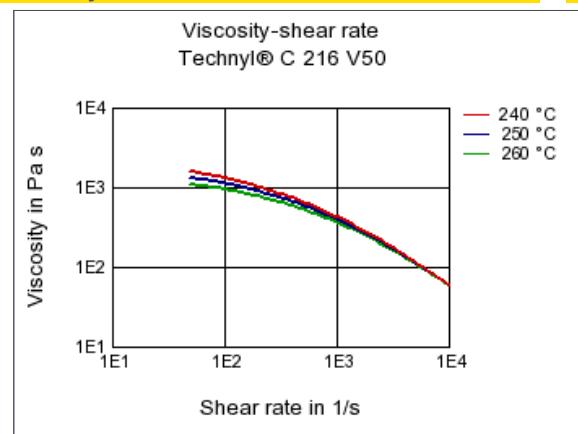
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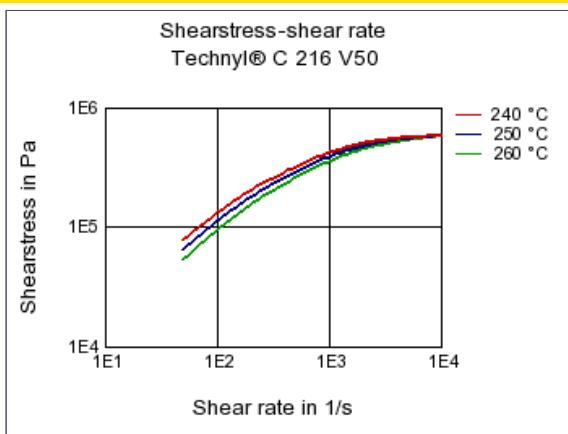
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Diagrams

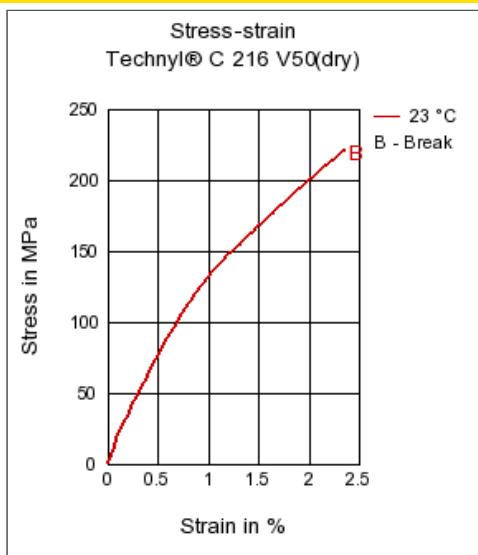
Viscosity-shear rate



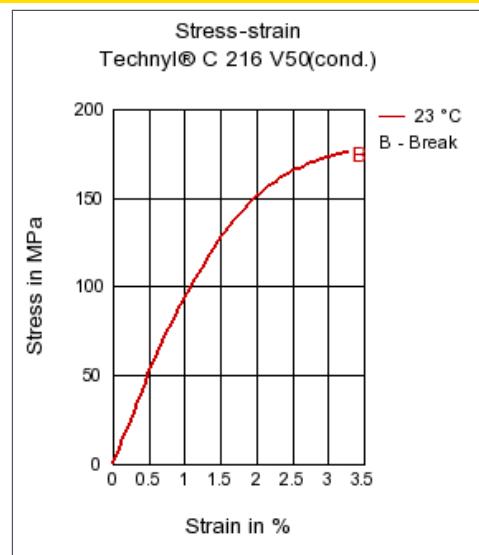
Shearstress-shear rate



Stress-strain



Stress-strain



Characteristics

Processing

Injection Molding

Special Characteristics

Heat stabilized or stable to heat

Other text information

Injection Molding

PROCESSING

Melt temperature: 225°C

Mold temperature: 80°C

Chemical Media Resistance

Acids

- Acetic Acid (5% by mass) (23°C)
- Citric Acid solution (10% by mass) (23°C)
- Lactic Acid (10% by mass) (23°C)
- Hydrochloric Acid (36% by mass) (23°C)
- Nitric Acid (40% by mass) (23°C)
- Sulfuric Acid (38% by mass) (23°C)
- Sulfuric Acid (5% by mass) (23°C)
- Chromic Acid solution (40% by mass) (23°C)

Bases

-  Sodium Hydroxide solution (35% by mass) (23°C)
-  Sodium Hydroxide solution (1% by mass) (23°C)
-  Ammonium Hydroxide solution (10% by mass) (23°C)

Alcohols

-  Isopropyl alcohol (23°C)
-  Methanol (23°C)
-  Ethanol (23°C)

Hydrocarbons

-  n-Hexane (23°C)
-  Toluene (23°C)
-  iso-Octane (23°C)

Ketones

-  Acetone (23°C)

Ethers

-  Diethyl ether (23°C)

Mineral oils

-  SAE 10W40 multigrade motor oil (23°C)

Standard Fuels

-  Standard fuel with alcohol (pref. ISO 1817 Liquid 4) (23°C)

Salt solutions

-  Zinc Chloride solution (50% by mass) (23°C)

Other

-  Ethylene Glycol (50% by mass) in water (108°C)
-  50% Oleic acid + 50% Olive Oil (23°C)
-  Water (23°C)
-  Deionized water (90°C)