Technyl® C 442 BLACK V

PA6-I — Solvay Engineering Plastics

Product Texts

Polyamide 6, unreinforced high viscosity, for extrusion

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	900 / 400	MPa	ISO 527-1/-2
Charpy impact strength (+23°C)	N / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	N / -	kJ/m²	ISO 179/1eA

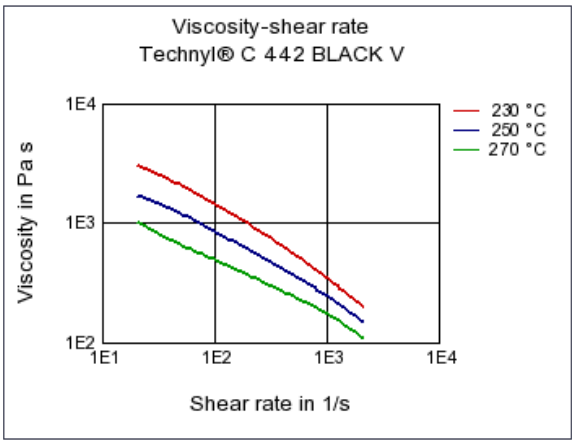
Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
Melting temperature (10°C/min)	222 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	55 / *	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	50 / *	°C	ISO 75-1/-2

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	- / 4	-	IEC 60250
Dissipation factor, 1MHz	200 / -	E-4	IEC 60250
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 60093
Surface resistivity	* / 1E11	Ohm	IEC 60093
Electric strength	- / 18	kV/mm	IEC 60243-1

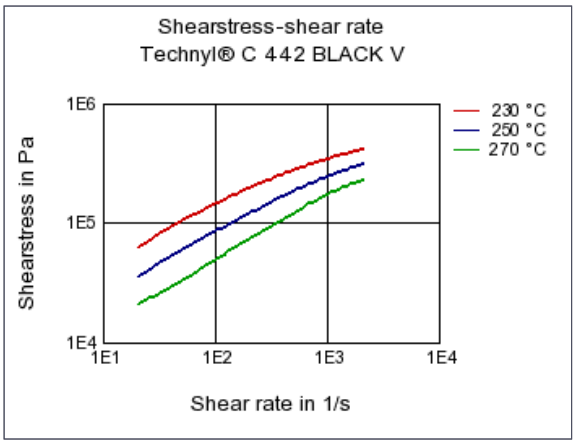
Other properties	dry / cond	Unit	Test Standard
ISO Data			
Density	1140 / -	kg/m³	ISO 1183

Diagrams

Viscosity-shear rate



Shearstress-shear rate



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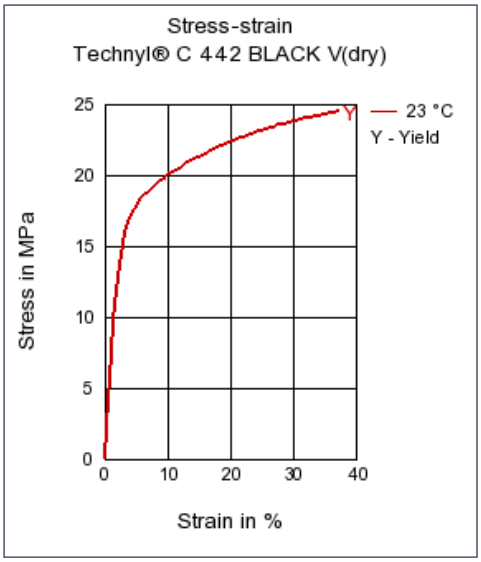
Stress-strain



Characteristics

Special Characteristics

High impact or impact modified

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

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

Standard Fuels

⛔	Standard fuel without alcohol (pref. ISO 1817 Liquid C) (23°C)
⛔	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)