Technylstar™ S 216 V30

PA6-GF30 Solvay Engineering Plastics

Product Texts

Due to its outstanding flow caracteristics, TECHNYLSTAR TM S 216 V30 provides a significant productivity improvement and allows more freedom in mould design and part design versus standard polyamide solutions.

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	9600 / 6200	MPa	ISO 527-1/-2
Stress at break	180 / 110	MPa	ISO 527-1/-2
Strain at break	3.3 / 5.5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	81 / 90	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	50 / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 14	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
Temp. of deflection under load (1.80 MPa)	205 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	32 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
Oxygen index	22 / *	%	ISO 4589-1/-2

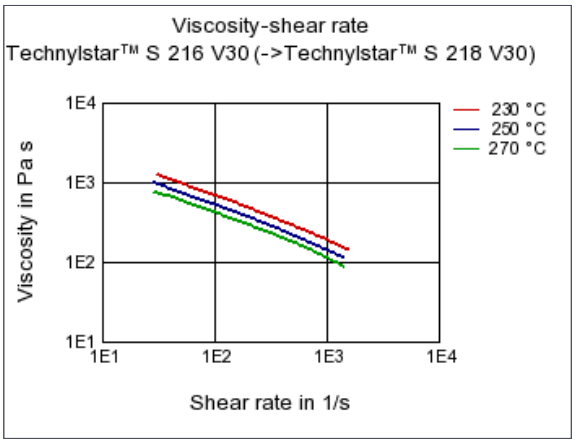
Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.8 / 4.5	-	IEC 60250
Dissipation factor, 100Hz	200 / 900	E-4	IEC 60250
Volume resistivity	>1E13 / 1E11	Ohm*m	IEC 60093
Surface resistivity	* / 1E11	Ohm	IEC 60093
Electric strength	- / 22	kV/mm	IEC 60243-1
Comparative tracking index	550 / -	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	0.95 / *	%	Sim. to ISO 62
Density	1340 / -	kg/m³	ISO 1183

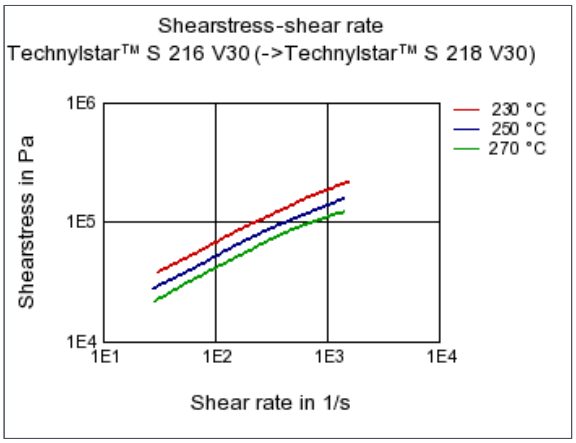
VDA Properties	Value	Unit	Test Standard
ISO Data			
Burning rate, Thickness 1 mm	25	mm/min	ISO 3795 (FMVSS 302)

Diagrams

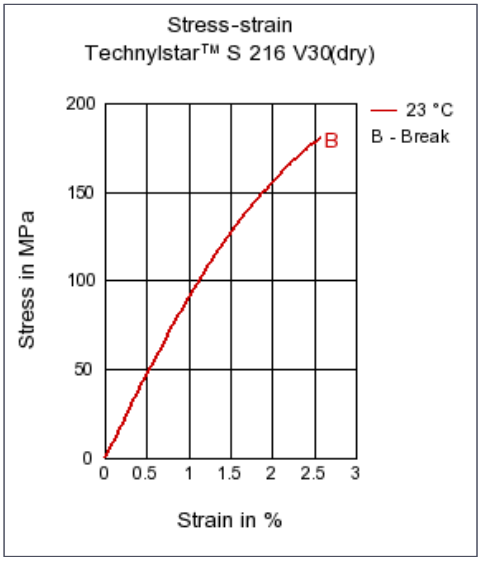
Viscosity-shear rate



Shearstress-shear rate



Stress-strain



Characteristics

Processing

Injection Molding

Other text information

Injection Molding

Recommended moulding conditions:

Barrel temperatures:
- feed zone 220 - 225°C
- compression zone 225 - 235°C
- front zone 235 - 245°C

Mould temperatures: 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 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)