Technylstar™ SX 216 V50

PA6-GF50 Solvay Engineering Plastics

Product Texts

TECHNYLSTAR Polyamide, reinforced with 50% of glass fibre, characterized by a high fluidity of the melt, for injection moulding.

TECHNYLSTAR TM SX 216 V50 is suitable for all applications where a high rigidity is required. Due to its outstanding flow properties, the material easily fills the mould and the surface aspect of the finished part is excellent.

This product is available in natural.

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	17000 / 11600	MPa	ISO 527-1/-2
Stress at break	230 / 162	MPa	ISO 527-1/-2
Strain at break	2.6 / 4	%	ISO 527-1/-2
Charpy impact strength (+23°C)	85 / 95	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	15 / 20	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)	210 / *	°C	ISO 75-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Comparative tracking index	500 / -	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	0.72 / *	%	Sim. to ISO 62
Density	1550 / -	kg/m³	ISO 1183

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	92 / *	cm³/g	ISO 307, 1157, 1628

Test specimen production	Value	Unit	Test Standard
ISO Data			
Injection Molding, mold temperature	80	°C	ISO 10724

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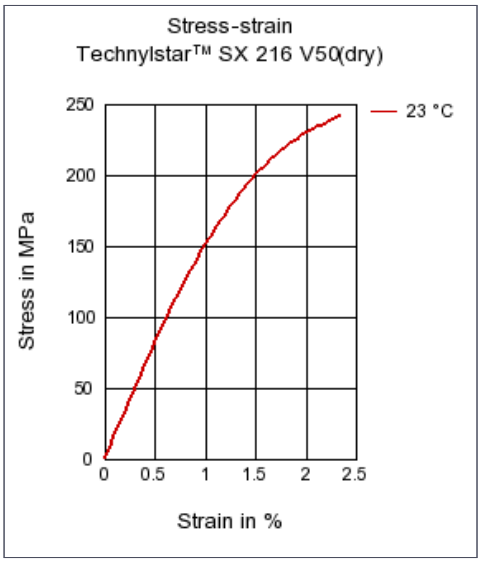
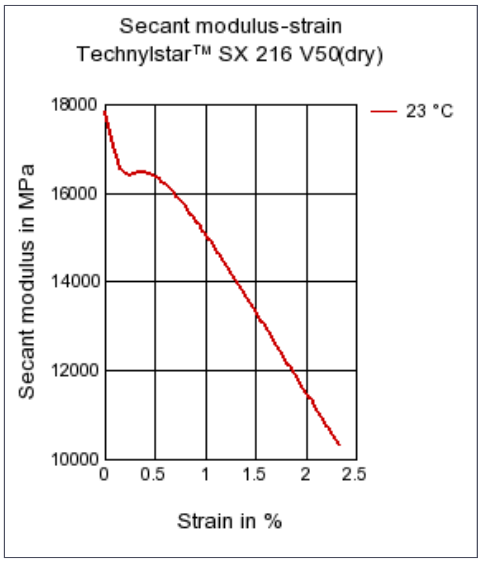
Diagrams

Stress-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Other text information

Injection Molding

The material is supplied in airtight bags, ready for use. In the case that the virgin material has absorbed moisture, it must be dried to a final moisture content of less than 0,15% with a dehumidified air drying equipment at approx 80°C.

Recommended moulding conditions:

Barrel temperatures :
- feed zone 220 - 225°C
- compr ession zone 235 - 240°C
- front zone 240 - 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)