

Technyl® B 50H1

PA666 FR

Solvay Engineering Plastics

Product Texts

Copolyamide 6.6/6, unreinforced, heat stabilised
 flame retardant, phosphorus and halogen free UL 94 V0 rated at 0.4 mm wall thickness

| Mechanical properties | dry / cond | Unit | Test Standard |
|------------------------------|-------------------|-------------|----------------------|
|------------------------------|-------------------|-------------|----------------------|

ISO Data

| | | | |
|--|-------------|-------------------|--------------|
| Tensile Modulus | 3600 / 2200 | MPa | ISO 527-1/-2 |
| Yield stress | 80 / - | MPa | ISO 527-1/-2 |
| Yield strain | 4 / - | % | ISO 527-1/-2 |
| Nominal strain at break | 10 / - | % | ISO 527-1/-2 |
| Charpy impact strength (+23°C) | 90 / - | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | 4.5 / - | kJ/m ² | ISO 179/1eA |

| Thermal properties | dry / cond | Unit | Test Standard |
|---------------------------|-------------------|-------------|----------------------|
|---------------------------|-------------------|-------------|----------------------|

ISO Data

| | | | |
|---|---------|-------|-----------------|
| Melting temperature (10°C/min) | 242 / * | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 85 / * | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion, parallel | 65 / * | E-6/K | ISO 11359-1/-2 |
| Burning behav. at thickness h | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 1.6 / * | mm | IEC 60695-11-10 |

| Electrical properties | dry / cond | Unit | Test Standard |
|------------------------------|-------------------|-------------|----------------------|
|------------------------------|-------------------|-------------|----------------------|

ISO Data

| | | | |
|-----------------------------|---------------|-------|-------------|
| Relative permittivity, 1MHz | 3.6 / 4 | - | IEC 60250 |
| Dissipation factor, 1MHz | 200 / - | E-4 | IEC 60250 |
| Volume resistivity | >1E13 / >1E13 | Ohm*m | IEC 60093 |
| Surface resistivity | * / 1E12 | Ohm | IEC 60093 |
| Electric strength | 34 / 30 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 / - | - | IEC 60112 |

| Other properties | dry / cond | Unit | Test Standard |
|-------------------------|-------------------|-------------|----------------------|
|-------------------------|-------------------|-------------|----------------------|

ISO Data

| | | | |
|---------|----------|-------------------|----------|
| Density | 1160 / - | kg/m ³ | ISO 1183 |
|---------|----------|-------------------|----------|

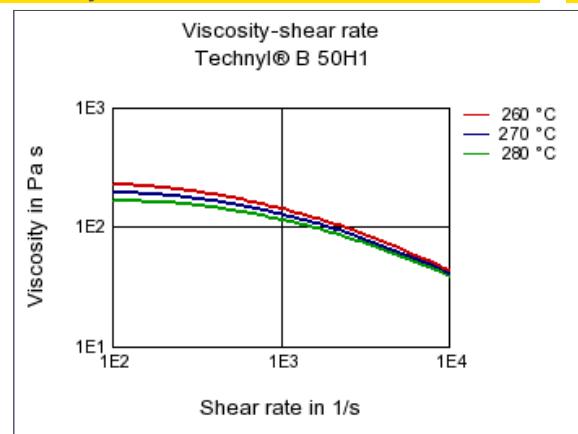
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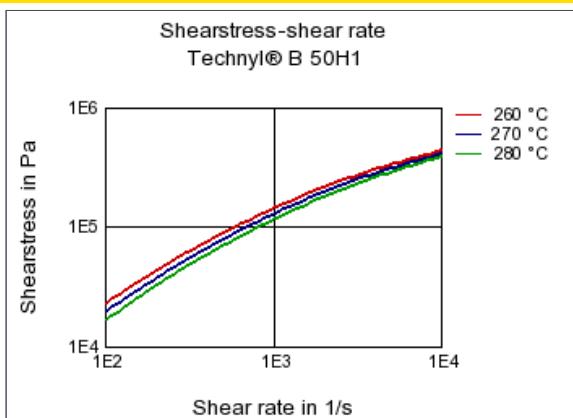
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Diagrams

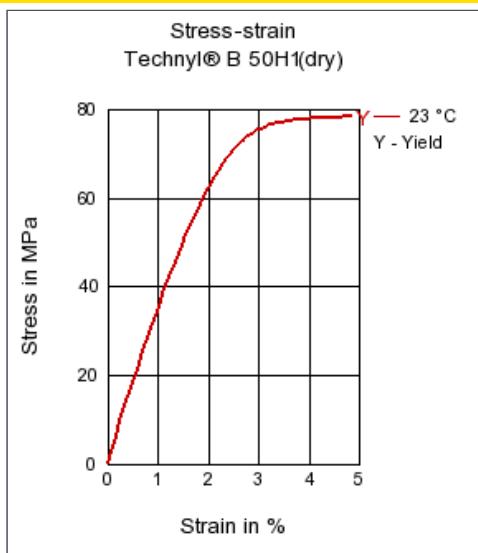
Viscosity-shear rate



Shearstress-shear rate



Stress-strain



Characteristics

Processing

Injection Molding

Special Characteristics

Flame retardant

Other text information

Injection Molding

PROCESSING

Melt temperature: 240°C

Mold temperature: 60°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)