

Terlux® 2812

MABS

INEOS Styrolution

Terlux® 2812 is an easy-flowing injection molding grade based on a MABS polymer. Terlux® 2812 offers an unique combination of properties, such as a balanced stiffness/toughness ratio and the high transparency well known in SAN molding compositions. Food contact statements are available on request.

| Rheological properties | Value | Unit | Test Standard |
|----------------------------|-------|-----------|---------------|
| ISO Data | | | |
| Melt volume-flow rate, MVR | 8 | cm³/10min | ISO 1133 |
| Temperature | 220 | °C | - |
| Load | 10 | kg | - |

| Mechanical Properties | Value | Unit | Test Standard |
|---|-------|-------|---------------|
| ISO Data | | | |
| Tensile Modulus | 1900 | MPa | ISO 527 |
| Yield stress | 42 | MPa | ISO 527 |
| Yield strain | 4 | % | ISO 527 |
| Nominal strain at break | 20 | % | ISO 527 |
| Impact Strength (Charpy), +23°C | 110 | kJ/m² | ISO 179/1eU |
| Impact Strength (Charpy), -30°C | 70 | kJ/m² | ISO 179/1eU |
| Notched Impact Strength (Charpy), +23°C | 5 | kJ/m² | ISO 179/1eA |
| Notched Impact Strength (Charpy), -30°C | 2 | kJ/m² | ISO 179/1eA |

| Thermal Properties | Value | Unit | Test Standard |
|---|-------|-------|---------------|
| ISO Data | | | |
| Temp. of deflection under load (1.80 MPa) | 87 | °C | ISO 75-1-2 |
| Temp. of deflection under load (0.45 MPa) | 93 | °C | ISO 75-1-2 |
| Vicat softening temperature, 50°C/h 50N | 87 | °C | ISO 306 |
| Burning Behav. at 1.5 mm Nom. Thickn. | HB | class | UL 94 |
| Thickness tested | 1.5 | mm | - |
| UL recognition | yes | - | - |
| Burning Behav. at thickness h | HB | class | UL 94 |
| Thickness tested | 3.0 | mm | - |
| UL recognition | yes | - | - |

| Other Properties | Value | Unit | Test Standard |
|---------------------|-------|-------|----------------|
| ISO Data | | | |
| Water Absorption | 0.7 | % | Sim. to ISO 62 |
| Humidity absorption | 0.35 | % | Sim. to ISO 62 |
| Density | 1080 | kg/m³ | ISO 1183 |

| Rheological calculation properties | Value | Unit | Test Standard |
|------------------------------------|-------|----------|---------------|
| ISO Data | | | |
| Thermal Conductivity of Melt | 0.155 | W/(m K) | - |
| Spec. heat capacity of melt | 2340 | J/(kg K) | - |
| Ejection temperature | 90 | °C | - |

| Processing Recommendation Injection Molding | Value | Unit | Test Standard |
|---|-----------|------|---------------|
| Pre-drying - Temperature | 70 | °C | - |
| Pre-drying - Time | 2 | h | - |
| Melt temperature | 230 - 260 | °C | - |
| Mold temperature | 50 - 80 | °C | - |

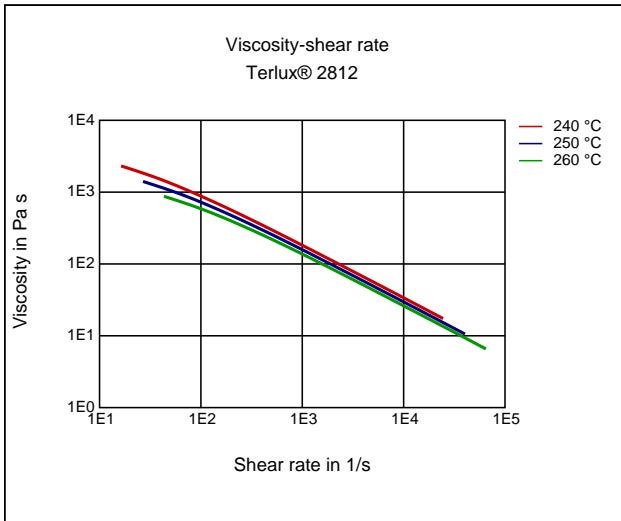
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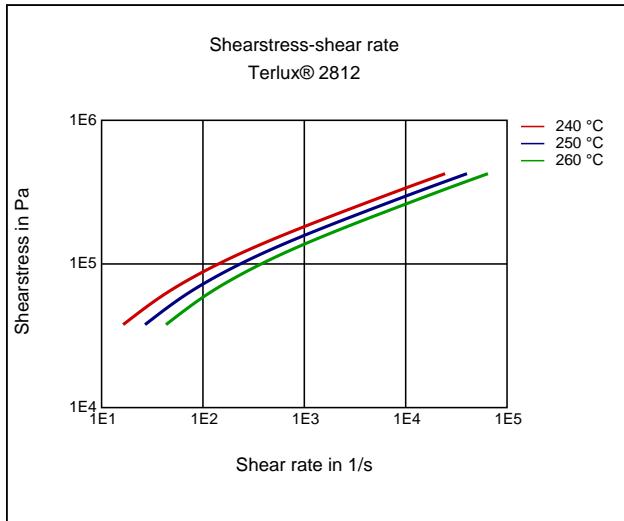
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Diagrams

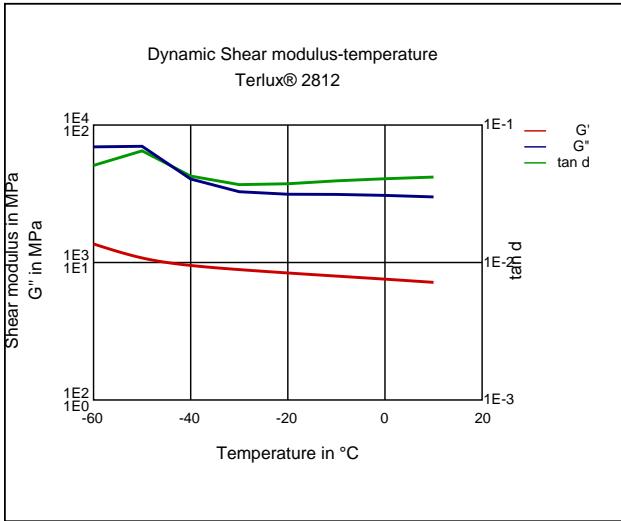
Viscosity-shear rate



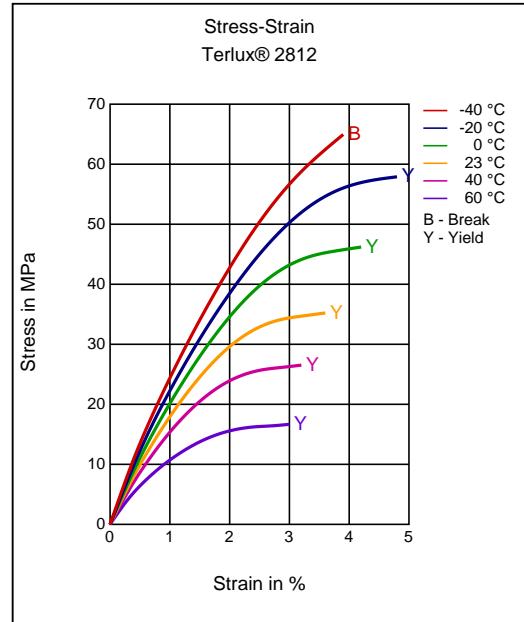
Shearstress-shear rate



Dynamic Shear modulus-temperature



Stress-strain

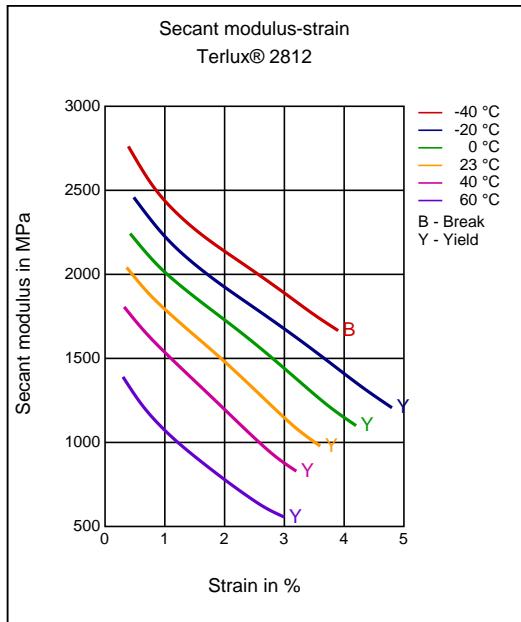


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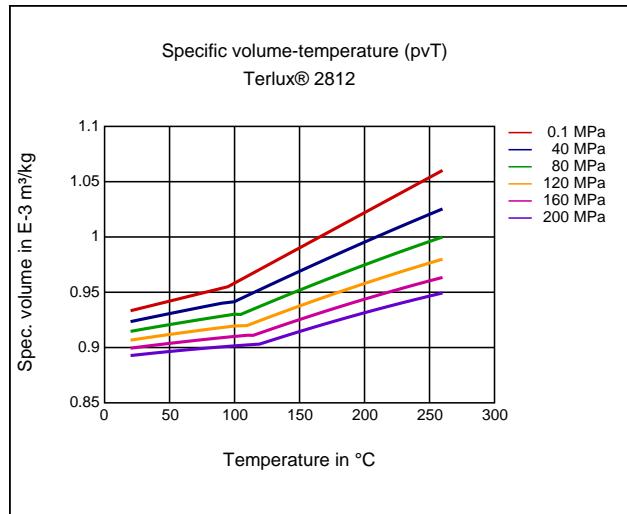
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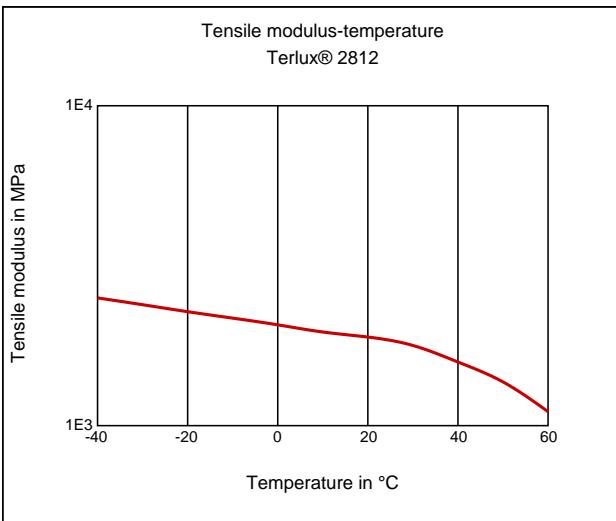
Secant modulus-strain



Specific volume-temperature (pvT)



Tensile Modulus-Temperature



Characteristics

Processing

Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Blow Molding, Thermoforming

Special Characteristics

Transparent

Delivery form

Pellets

Injection Molding

PREPROCESSING

Pre-drying, Temperature: 70°C

Pre-drying, Time: 2h

PROCESSING

Melt temperature, range: 230 - 260°C

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Mold temperature, range: 50 - 75 °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)
- ✓ 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

- ✓ Methanol (23°C)
- ✓ Ethanol (23°C)

Hydrocarbons

- ✓ iso-Octane (23°C)

Standard Fuels

- ✓ Diesel fuel (pref. ISO 1817 Liquid F) (23°C)

Salt solutions

- ✓ Sodium Chloride solution (10% by mass) (23°C)
- ✓ Sodium Hypochlorite solution (10% by mass) (23°C)
- ✓ Sodium Carbonate solution (20% by mass) (23°C)
- ✓ Sodium Carbonate solution (2% by mass) (23°C)
- ✓ Zinc Chloride solution (50% by mass) (23°C)

Other

- ✓ Hydrogen peroxide (23°C)
- ✓ 1% nonylphenoxy-polyethyleneoxy ethanol in water (23°C)
- ✓ Water (23°C)