

TECHNICAL DATA SHEET

Stanyl® TE341

Envalior
PA46

Processing

Injection molding

Delivery Form

Pellets

Additives

Lubricants, Release agent

Special Characteristics

Heat stabilized or stable to heat

Product Text

Product Information

Heat Stabilized, Lubricated

ISO 1043 PA46

| Processing/Physical Characteristics | Value | Unit | Standard |
|---------------------------------------|---------|-------------------|-------------|
| Density of melt | 987 | kg/m ³ | |
| Thermal conductivity of melt | 0.261 | W/(m K) | |
| Spec. heat capacity of melt | 2790 | J/(kg K) | |
| Eff. thermal diffusivity | 9.11E-8 | m ² /s | |
| Mechanical Properties | Value | Unit | Standard |
| Tensile modulus | 3300 | MPa | ISO 527 |
| Yield stress | 100 | MPa | ISO 527 |
| Yield strain | 10 | % | ISO 527 |
| Nominal strain at break | 40 | % | ISO 527 |
| Poisson's ratio | 0.35 | | ISO 527 |
| Tensile creep modulus, 1000h | 550 | MPa | ISO 899-1 |
| Charpy impact strength, +23°C | N | kJ/m ² | ISO 179/1eU |
| Charpy impact strength, -30°C | N | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength, +23°C | 10 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 4 | kJ/m ² | ISO 179/1eA |

Stanyl® TE341

Envalior

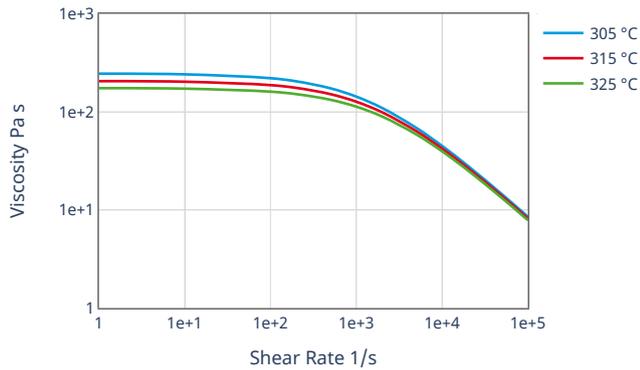
| Thermal Properties | Value | Unit | Standard |
|---|-------|--------------------|---------------------|
| Melting temperature, 10°C/min | 295 | °C | ISO 11357-1/-3 |
| Glass transition temperature, 10°C/min | 75 | °C | ISO 11357-1/-2 |
| Temp. of deflection under load, 1.80 MPa | 190 | °C | ISO 75-1/-2 |
| Temp. of deflection under load, 0.45 MPa | 280 | °C | ISO 75-1/-2 |
| Vicat softening temperature, B | 290 | °C | ISO 306 |
| Coeff. of linear therm. expansion, parallel | 85 | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal | 110 | E-6/K | ISO 11359-1/-2 |
| Burning behav. at 1.5 mm nom. thickn. | V-2 | class | IEC 60695-11-10 |
| Thickness tested | 1.5 | mm | |
| Yellow card available | yes | | |
| Burning behav. at thickness h | V-2 | class | IEC 60695-11-10 |
| Thickness tested | 3 | mm | |
| Yellow card available | yes | | |
| Oxygen index | 27 | % | ISO 4589-1/-2 |
| Electrical Properties | Value | Unit | Standard |
| Relative permittivity, 100Hz | 4 | | IEC 62631-2-1 |
| Relative permittivity, 1MHz | 3.6 | | IEC 62631-2-1 |
| Dissipation factor, 100Hz | 70 | E-4 | IEC 62631-2-1 |
| Dissipation factor, 1MHz | 260 | E-4 | IEC 62631-2-1 |
| Volume resistivity | 1E13 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | 1E14 | Ohm | IEC 62631-3-2 |
| Electric strength | 25 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 | | IEC 60112 |
| Other Properties | Value | Unit | Standard |
| Water absorption | 13.5 | % | Sim. to ISO 62 |
| Humidity absorption | 3.7 | % | Sim. to ISO 62 |
| Density | 1180 | kg/m ³ | ISO 1183 |
| Material Specific Properties | Value | Unit | Standard |
| Viscosity number | 185 | cm ³ /g | ISO 307, 1157, 1628 |

Diagrams

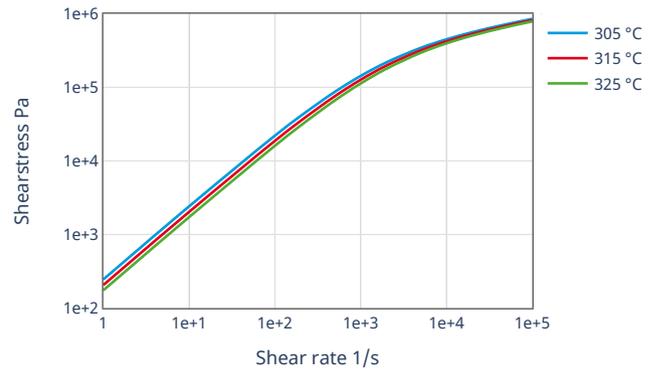
Stanyl® TE341

Envalior

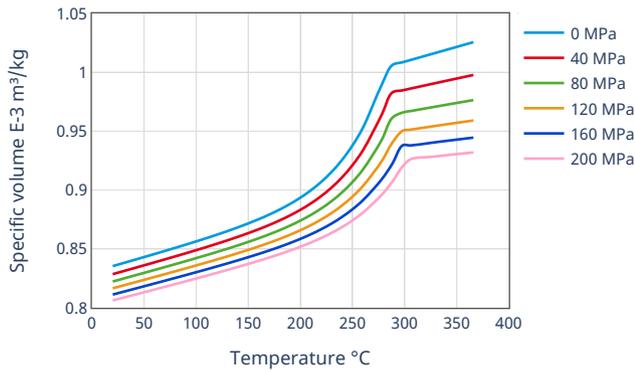
Viscosity-shear rate



Shearstress-shear rate



Spec. volume-Temperature (pVT)



Processing Information

Injection molding

Injection Molding Recommendations

Hot runner recommendations for molding high heat performance Engineering Materials

Steel recommendations for molds screws and barrels

Supporting document for Stanyl quality processing

Trouble shooting guideline for injection molding