

TECHNICAL DATA SHEET

Akulon® S223-DH

Envalior
PA66

Processing

Injection molding

Delivery Form

Pellets

Additives

Release agent

Special Characteristics

Heat stabilized or stable to heat

Features

Nucleated

Product Text

Product Information

Low/Medium Viscosity, Nucleated, Heat Stabilized

ISO 1043 PA66

| Processing/Physical Characteristics | Value | Unit | Standard |
|---------------------------------------|---------|-------------------|-----------------|
| Molding shrinkage, parallel | 0.95 | % | ISO 294-4, 2577 |
| Molding shrinkage, normal | 0.95 | % | ISO 294-4, 2577 |
| Density of melt | 969 | kg/m ³ | |
| Thermal conductivity of melt | 0.13 | W/(m K) | |
| Spec. heat capacity of melt | 2750 | J/(kg K) | |
| Eff. thermal diffusivity | 4.87E-8 | m ² /s | |
| Mechanical Properties | Value | Unit | Standard |
| Tensile modulus | 3600 | MPa | ISO 527 |
| Yield stress | 95 | MPa | ISO 527 |
| Yield strain | 3.5 | % | ISO 527 |
| Nominal strain at break | 10 | % | ISO 527 |
| Poisson's ratio | 0.35 | | ISO 527 |
| 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 | 6 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 6 | kJ/m ² | ISO 179/1eA |

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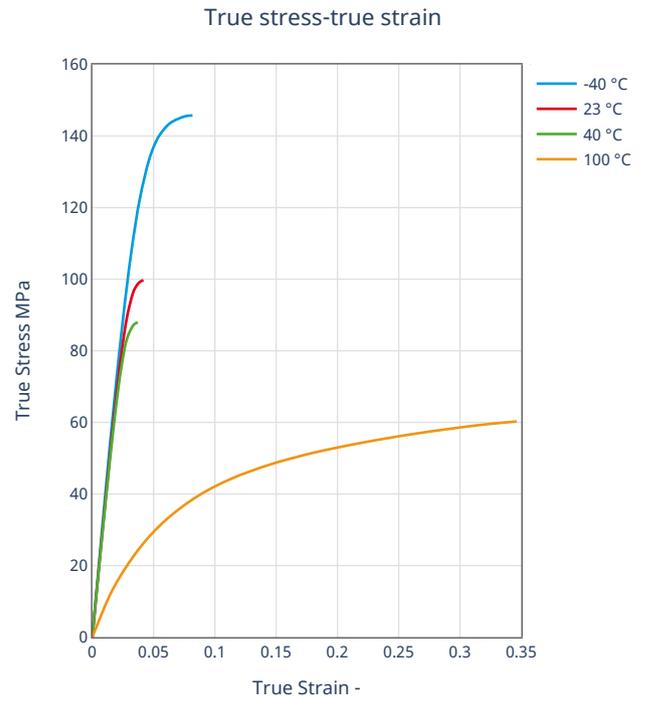
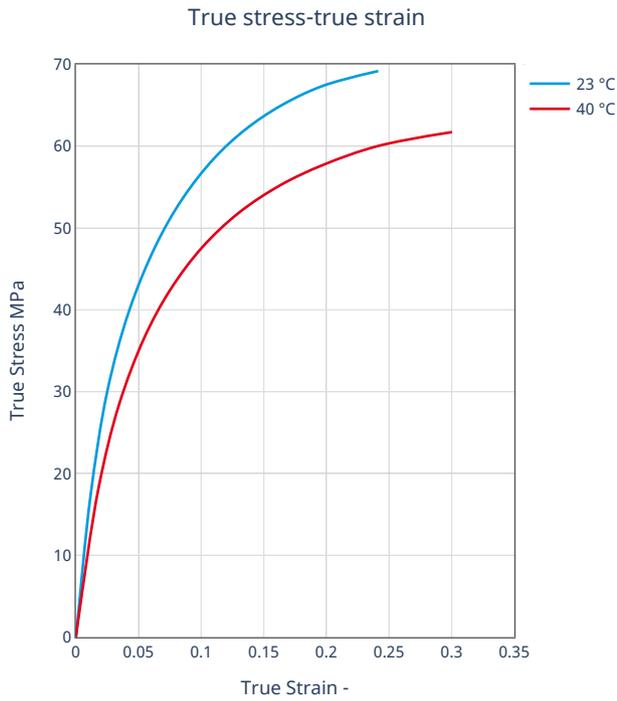
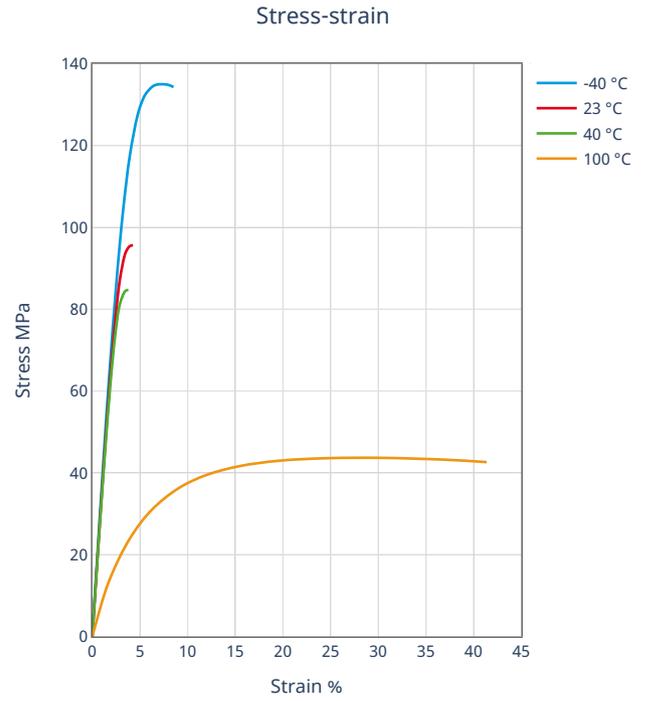
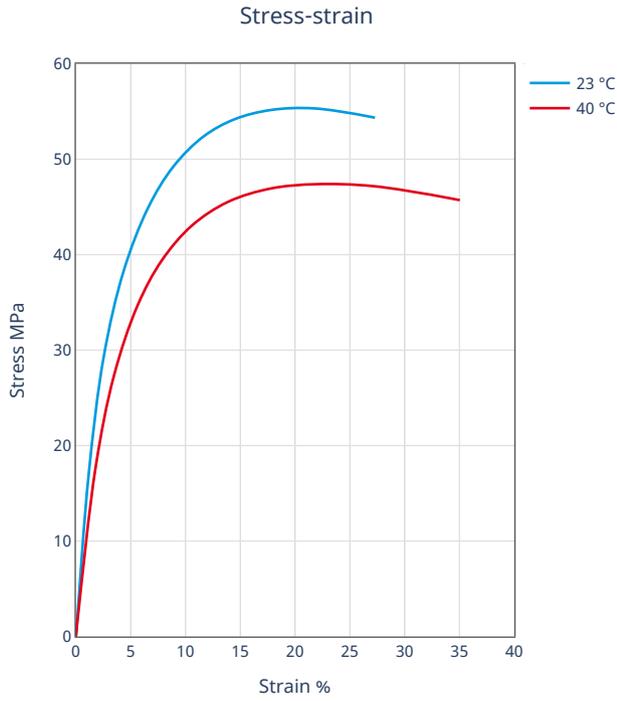
Envalior

| Thermal Properties | Value | Unit | Standard |
|---|-------|-------------------|-----------------|
| Melting temperature, 10°C/min | 260 | °C | ISO 11357-1/-3 |
| Temp. of deflection under load, 1.80 MPa | 85 | °C | ISO 75-1/-2 |
| Temp. of deflection under load, 0.45 MPa | 215 | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion, parallel | 100 | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion, normal | 100 | 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 | | |
| Electrical Properties | Value | Unit | Standard |
| Relative permittivity, 100Hz | 3.2 | | IEC 62631-2-1 |
| Relative permittivity, 1MHz | 3 | | IEC 62631-2-1 |
| Dissipation factor, 100Hz | 60 | E-4 | IEC 62631-2-1 |
| Dissipation factor, 1MHz | 170 | E-4 | IEC 62631-2-1 |
| Volume resistivity | 1E12 | Ohm*m | IEC 62631-3-1 |
| Surface resistivity | 1E13 | Ohm | IEC 62631-3-2 |
| Electric strength | 30 | kV/mm | IEC 60243-1 |
| Comparative tracking index | 600 | | IEC 60112 |
| Other Properties | Value | Unit | Standard |
| Water absorption | 8.5 | % | Sim. to ISO 62 |
| Humidity absorption | 2.3 | % | Sim. to ISO 62 |
| Density | 1140 | kg/m ³ | ISO 1183 |

Diagrams

Akulon® S223-DH

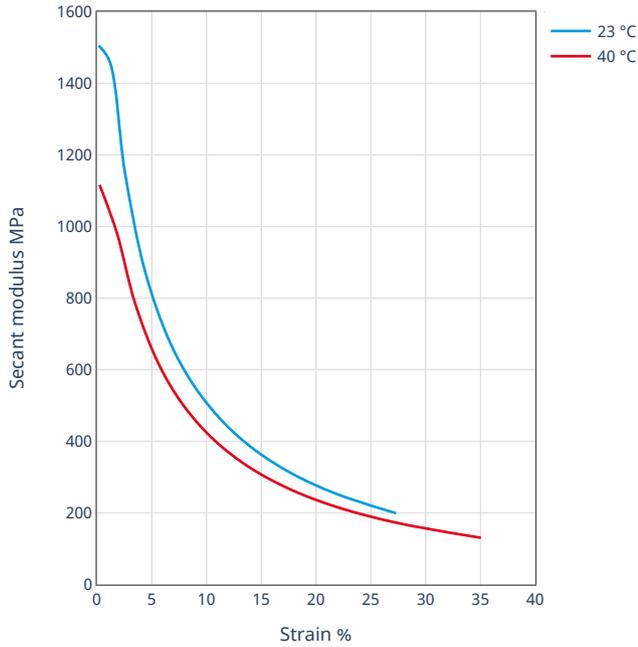
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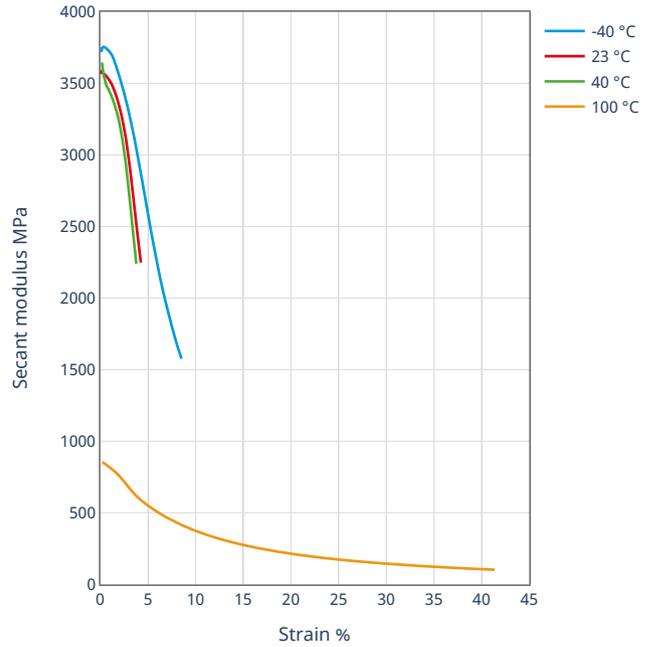
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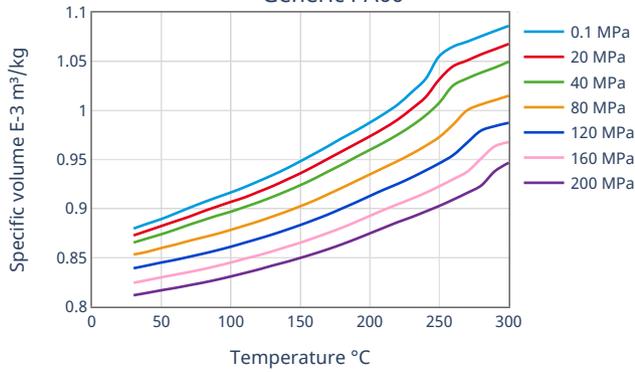
Secant modulus-strain



Secant modulus-strain



Spec. volume-Temperature (pVT)
->Generic PA66



Processing Information

Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Trouble shooting guideline for injection molding