# HOSTAFORM® C 2521 LS

## HOSTAFORM®

POM copolymer
Stiff-flowing type for injection molding and extrusion with high impact toughness and good tracking resistance over a high range of temperature; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. This grade has been specially stabilized to prevent discoloration and deterioration of mechanical properties from ultraviolet light exposure. The material is available in natural, black and colored.
Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm.
Ranges of applications: injection molding thick-walled, void-free molded parts; extrusion e.g. for boards and pipes.
FMVSS = Federal Motor Vehicle Safety Standard (USA)

## Product information

| | | | |
|---|---|---|---|
| Resin Identification | POM | | ISO 1043 |
| Part Marking Code | >POM< | | ISO 11469 |

## Rheological properties

| | | | |
|---|---|---|---|
| Melt volume-flow rate | 2.5 | $cm^3$/10min | ISO 1133 |
| Temperature | 374 | °F | |
| Load | 4.76 | lb | |
| Molding shrinkage, parallel | 2.1 | % | ISO 294-4, 2577 |
| Molding shrinkage, normal | 1.8 | % | ISO 294-4, 2577 |

## Typical mechanical properties

| | | | |
|---|---|---|---|
| Tensile modulus | 377000 | psi | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 9000 | psi | ISO 527-1/-2 |
| Tensile strain at yield, 50mm/min | 9 | % | ISO 527-1/-2 |
| Nominal strain at break | 32 | % | ISO 527-1/-2 |
| Flexural modulus | 363000 | psi | ISO 178 |
| Tensile creep modulus, 1h | 334000 | psi | ISO 899-1 |
| Tensile creep modulus, 1000h | 160000 | psi | ISO 899-1 |
| Charpy impact strength, 23°C | 119[P] | ftlb/$in^2$ | ISO 179/1eU |
| Charpy impact strength, -30°C | 119 | ftlb/$in^2$ | ISO 179/1eU |
| Charpy notched impact strength, 23°C | 4.04 | ftlb/$in^2$ | ISO 179/1eA |
| Charpy notched impact strength, -30°C | 3.33 | ftlb/$in^2$ | ISO 179/1eA |
| Ball indentation hardness, H 358/30 | 20900 | psi | ISO 2039-1 |

[P]: Partial Break

## Thermal properties

| | | | |
|---|---|---|---|
| Melting temperature, 10°C/min | 329 | °F | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa | 214 | °F | ISO 75-1/-2 |
| Coefficient of linear thermal expansion (CLTE), parallel | 0.61 | E-4/°F | ISO 11359-1/-2 |
| Thermal conductivity of melt | 0.155 | W/(m K) | ISO 22007-2 |
| Specific heat capacity of melt | 2210 | J/(kg K) | ISO 22007-4 |

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## Electrical properties

| | | | |
|---|---|---|---|
| Relative permittivity, 100Hz | 4 | | IEC 62631-2-1 |
| Relative permittivity, 1MHz | 4 | | IEC 62631-2-1 |
| Dissipation factor, 100Hz | 15 | E-4 | IEC 62631-2-1 |
| Dissipation factor, 1MHz | 50 | E-4 | IEC 62631-2-1 |
| Volume resistivity | 1E12 | Ohm.m | IEC 62631-3-1 |
| Surface resistivity | 1E14 | Ohm | IEC 62631-3-2 |
| Electric strength | 889 | kV/in | IEC 60243-1 |
| Comparative tracking index | 600 | | IEC 60112 |

## Physical/Other properties

| | | | |
|---|---|---|---|
| Humidity absorption, 2mm | 0.2 | % | Sim. to ISO 62 |
| Water absorption, 2mm | 0.65 | % | Sim. to ISO 62 |
| Density | 0.0509 | lb/in$^3$ | ISO 1183 |

## Injection

| | | |
|---|---|---|
| Drying Recommended | no | |
| Drying Temperature | 212 | °F |
| Drying Time, Dehumidified Dryer | 3 - 4 | h |
| Processing Moisture Content | ≤0.2 | % |
| Melt Temperature Optimum | 392 | °F |
| Min. melt temperature | 374 | °F |
| Max. melt temperature | 410 | °F |
| Max. screw tangential speed | ≤0.3 | m/s |
| Mold Temperature Optimum | 212 | °F |
| Min. mold temperature | 176 | °F |
| Max. mold temperature | 248 | °F |
| Hold pressure range | 8700 - 17400 | psi |
| Hold Pressure Time<br>(h is the max. wall thickness of the part in mm) | 2h$^2$-3 | s |
| Back pressure | 580 | psi |
| Ejection temperature | 284 | °F |

## Characteristics

| | |
|---|---|
| Processing | Injection Molding, Film Extrusion, Extrusion, Sheet Extrusion, Other Extrusion, Blow Molding |
| Additives | Release agent |
| Special characteristics | U.V. stabilized or stable to weather, High viscosity |

## Additional information

Injection molding

### Preprocessing

General drying is not necessary due to low moisture absorption of the resin.

In case of bad storage conditions (water contact or condensed water) the use of a recirculating air dryer (100 to 120 °C / max. 40 mm

layer / 3 to 6 hours) is recommended.

Max. Water content 0,2 %

## Processing

Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.

## Postprocessing

Conditioning e.g. moisturizing is not necessary.

Processing Notes

## Pre-Drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.

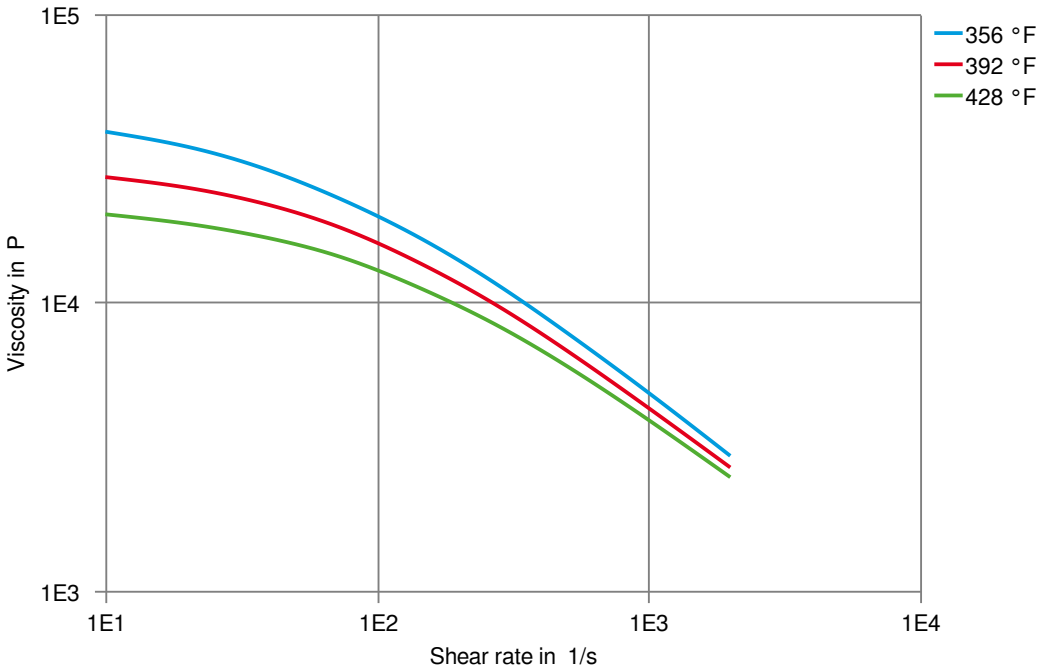
## Storage

The product can then be stored in standard conditions until processed.

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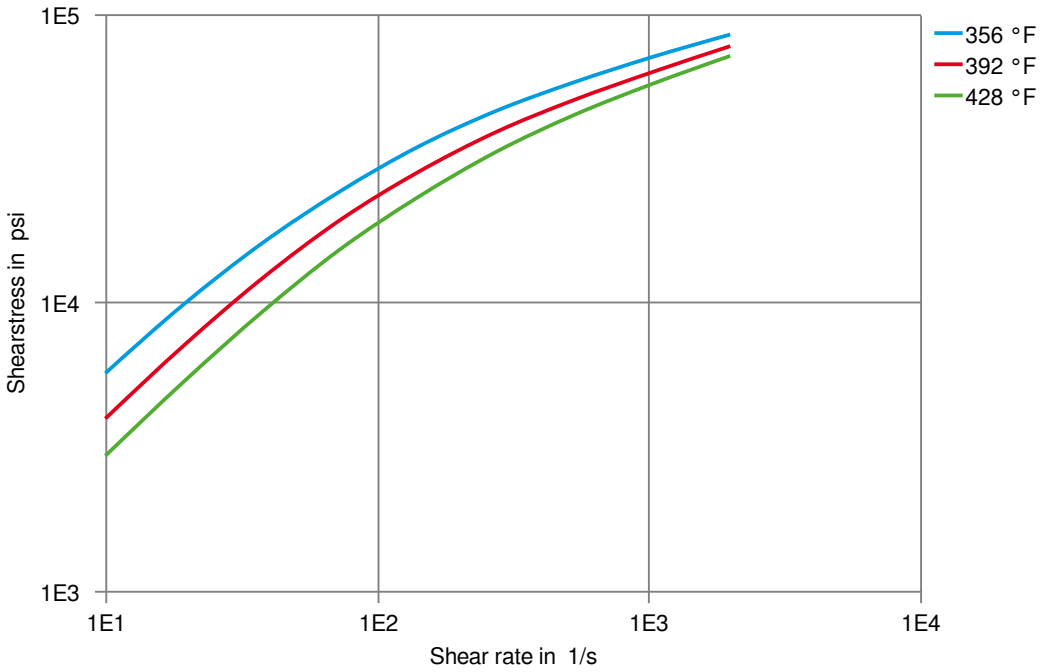
## Viscosity-shear rate



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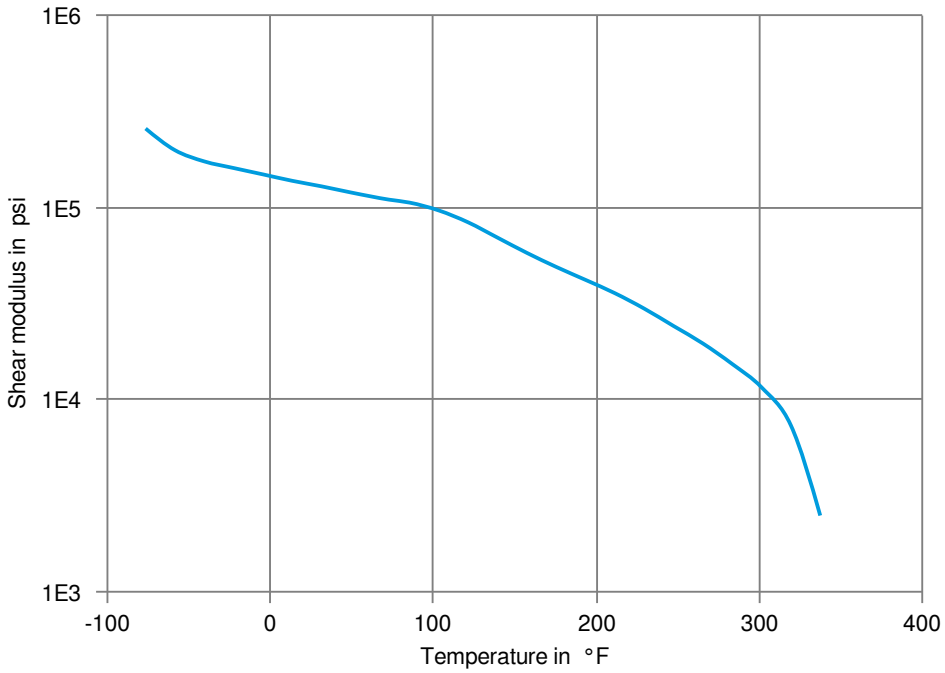
## Shearstress-shear rate



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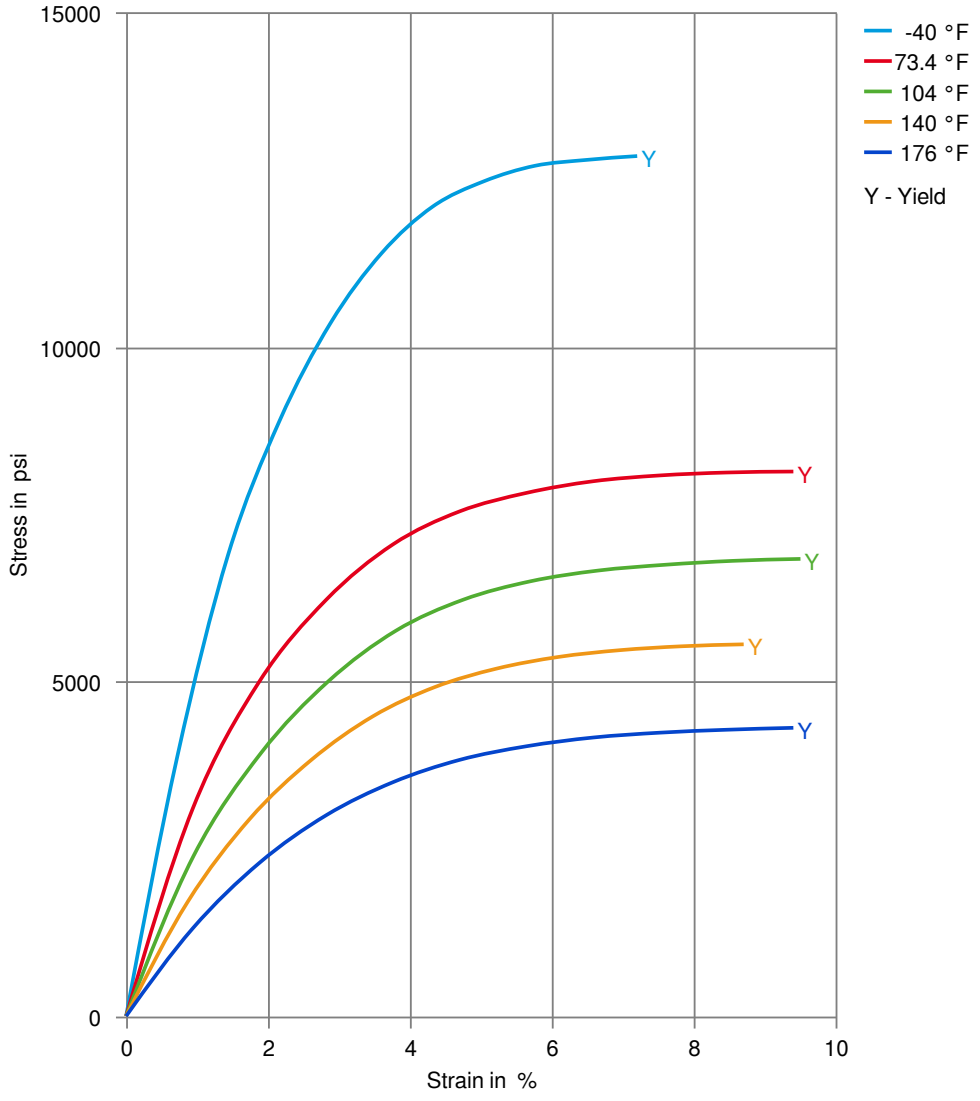
## Dynamic Shear modulus-temperature



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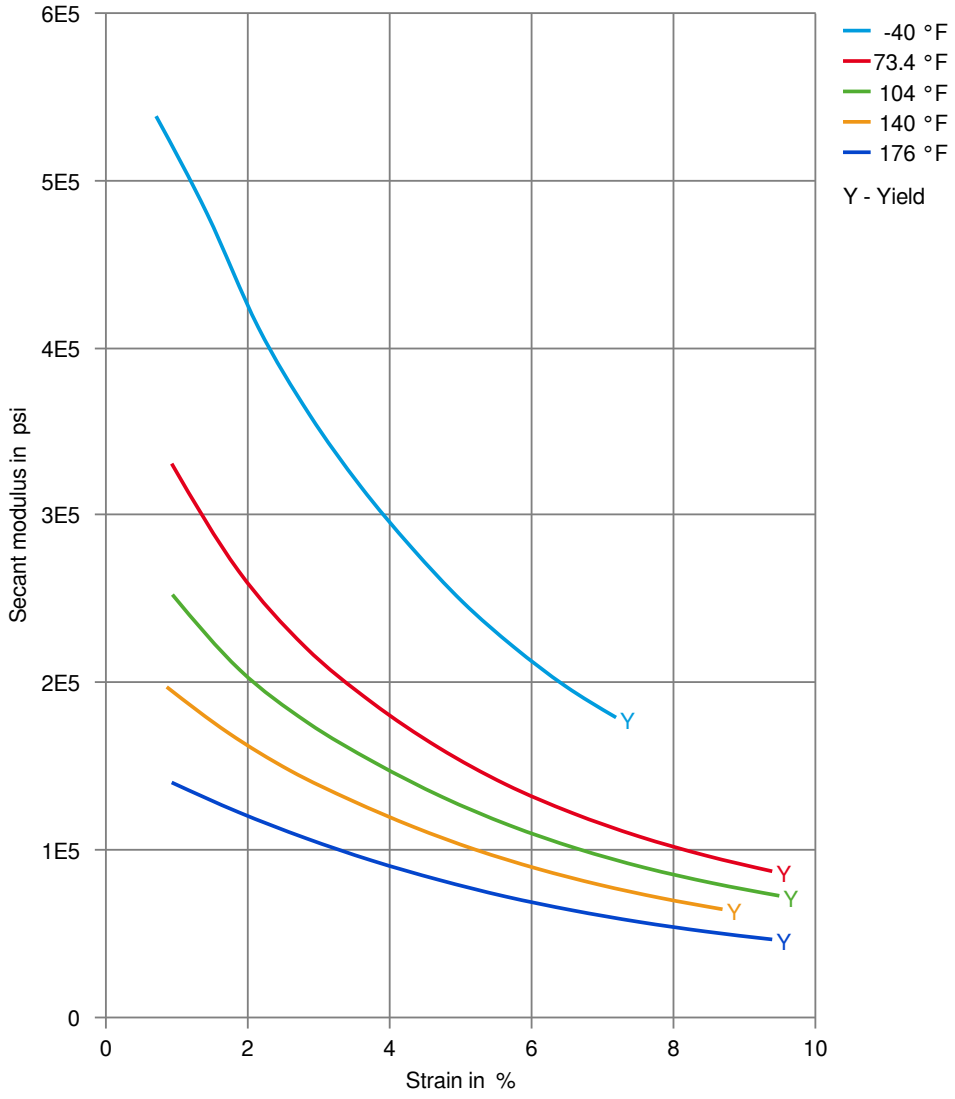
## Stress-strain



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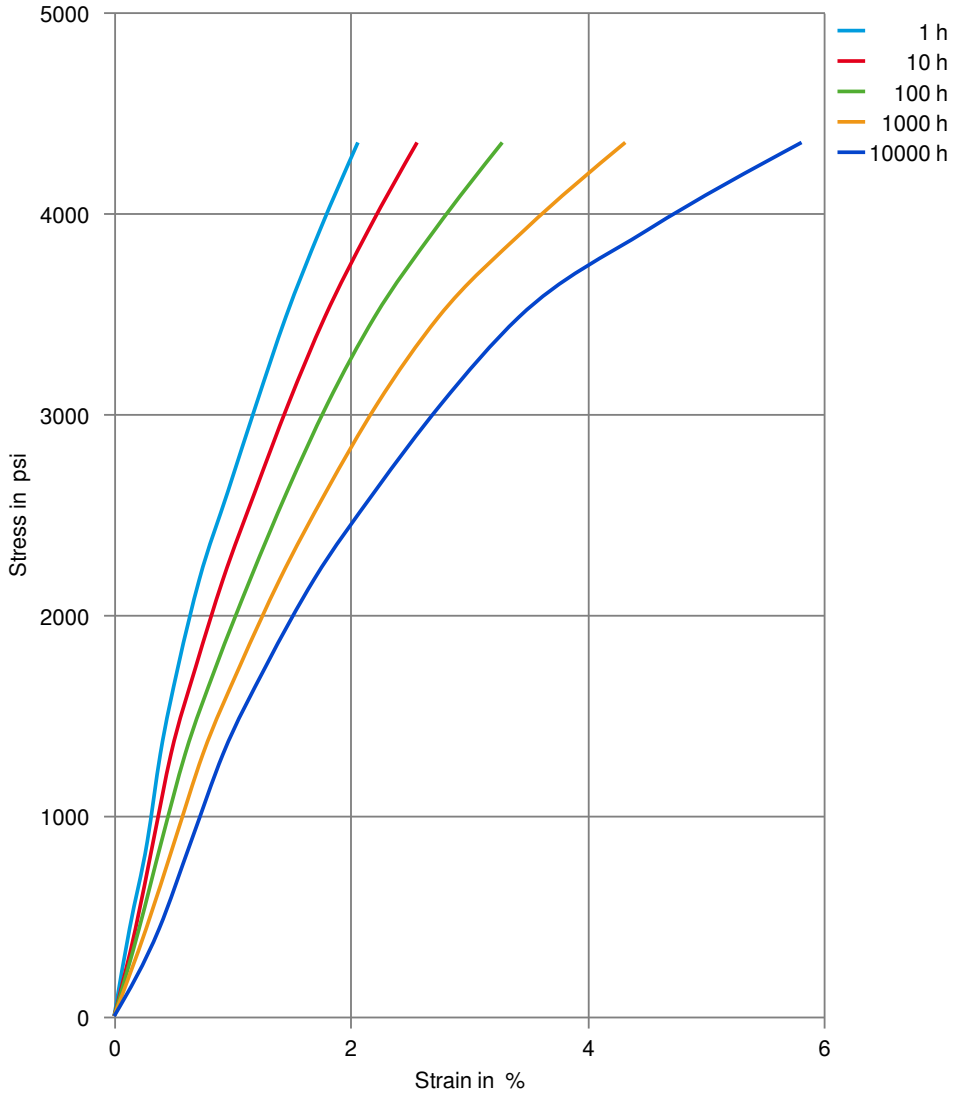
## Secant modulus-strain



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## Stress-strain (isochronous) 73.4 °F



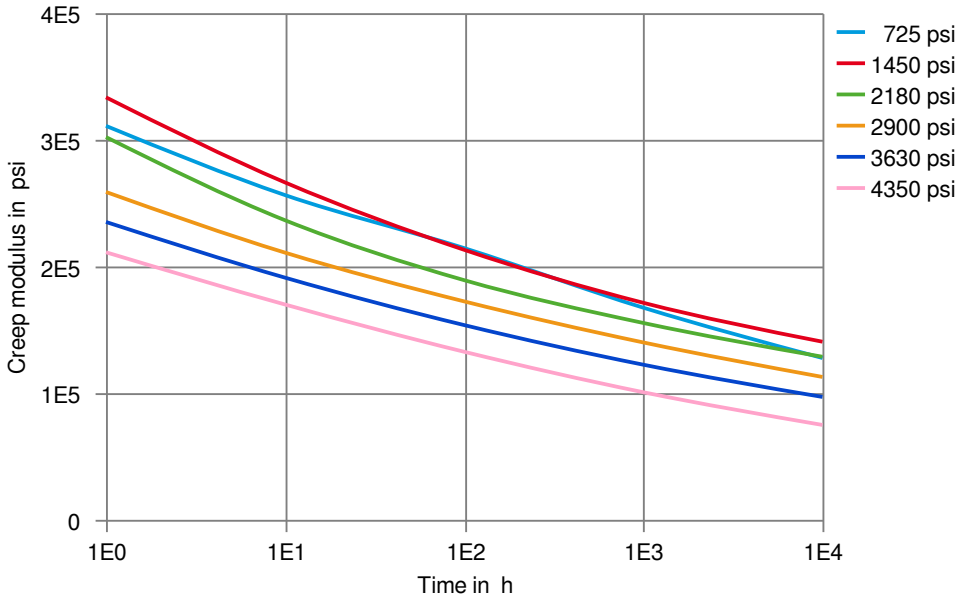



Revised: 2025-07-10 Source: Celanese Materials Database

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## Creep modulus-time 73.4 °F






Revised: 2025-07-10 Source: Celanese Materials Database

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