

Luran® 378P
SAN

INEOS Styrolution

Luran® 378P is an easy flow grade of SAN with enhanced chemical resistance and mechanical strength. Food contact statements are available on request.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	20	cm³/10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	3800	MPa	ISO 527
Stress at Break	75	MPa	ISO 527
Strain at Break	3.5	%	ISO 527
Impact Strength (Charpy), +23°C	19	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	19	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	2	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	89	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	101	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	107	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	70	E-6/K	ISO 11359-1/-2

Other Properties	Value	Unit	Test Standard
ISO Data			
Humidity absorption	0.3	%	Sim. to ISO 62
Density	1080	kg/m³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Thermal Conductivity of Melt	0.17	W/(m K)	-

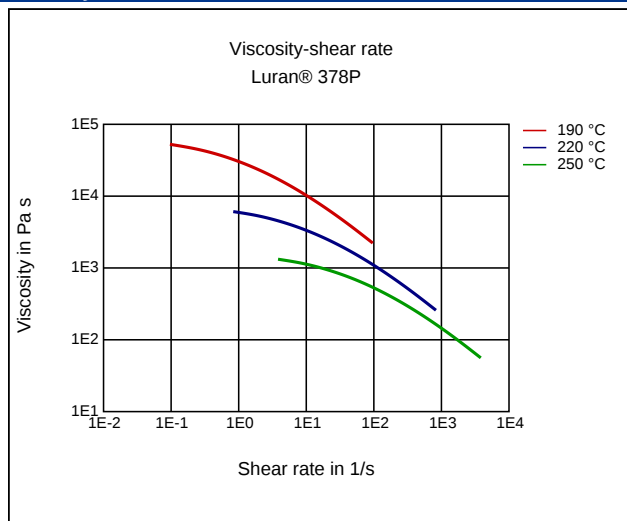
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	220 - 260	°C	-
Mold temperature	40 - 80	°C	-

Luran® 378P SAN

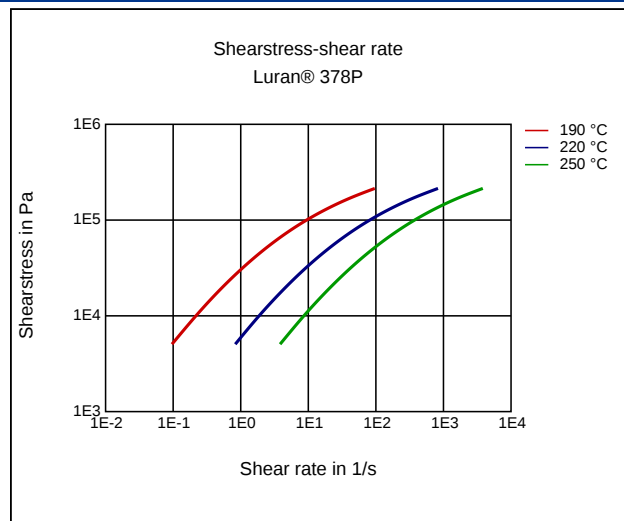
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Diagrams

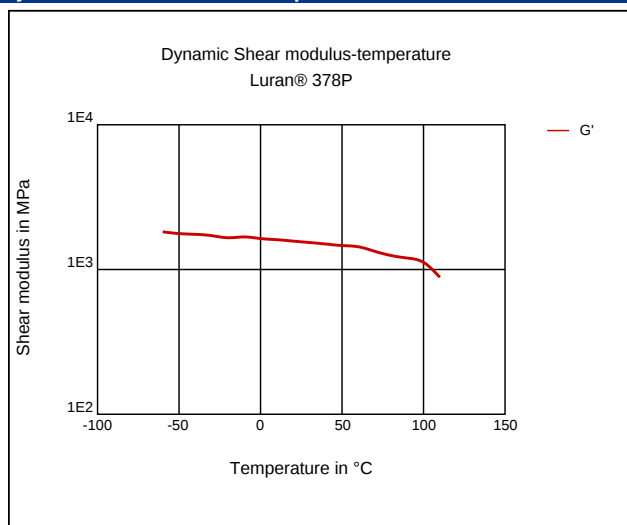
Viscosity-shear rate



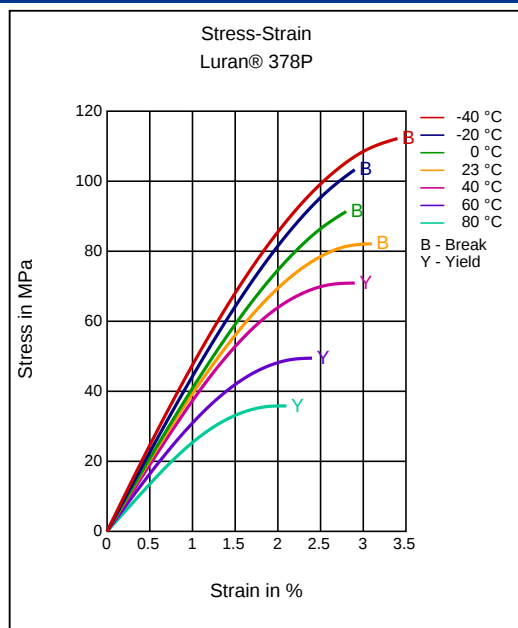
Shearstress-shear rate



Dynamic Shear modulus-temperature



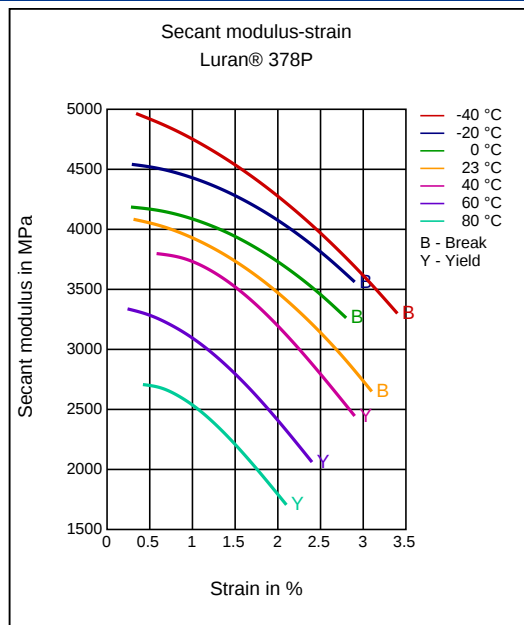
Stress-strain



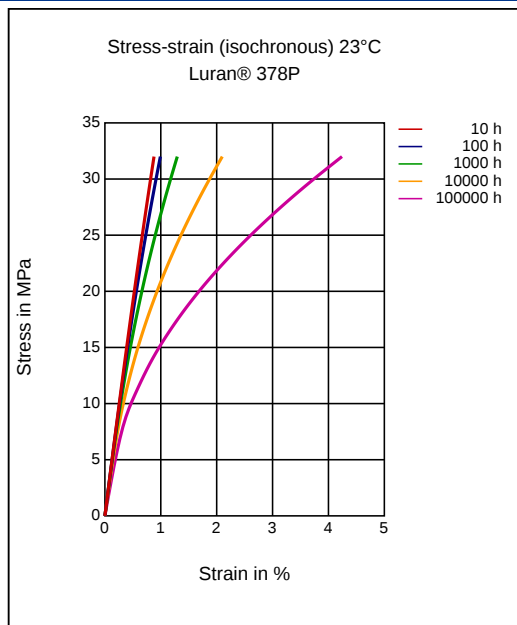
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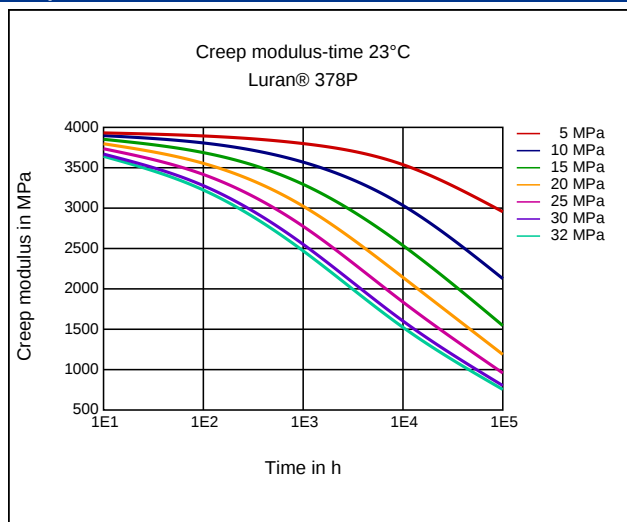
Secant modulus-strain



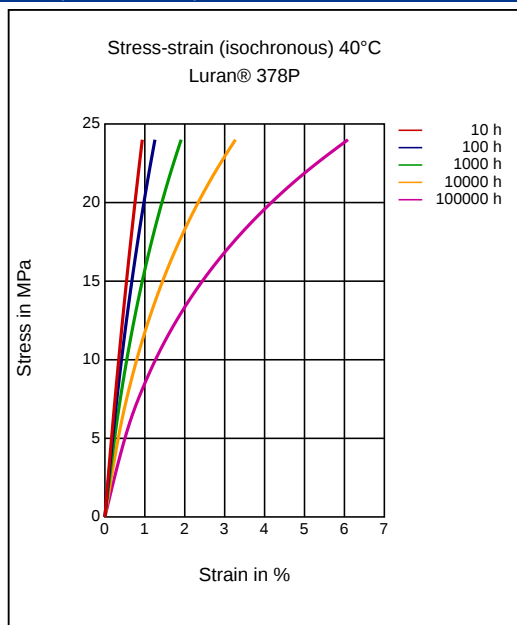
Stress-strain (isochronous) 23 °C



Creep modulus-time 23 °C



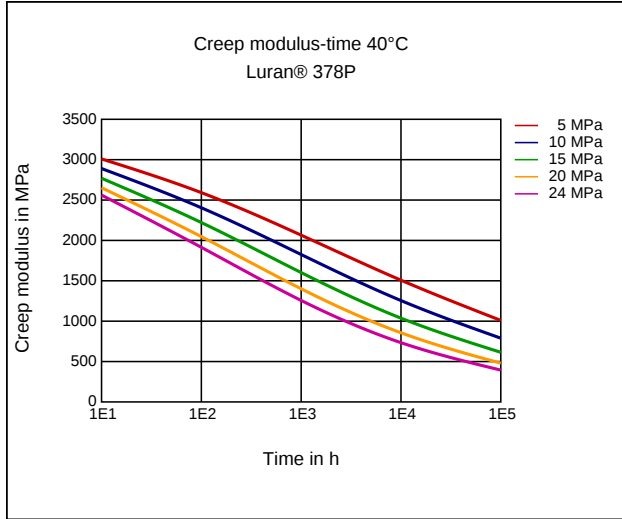
Stress-strain (isochronous) 40 °C



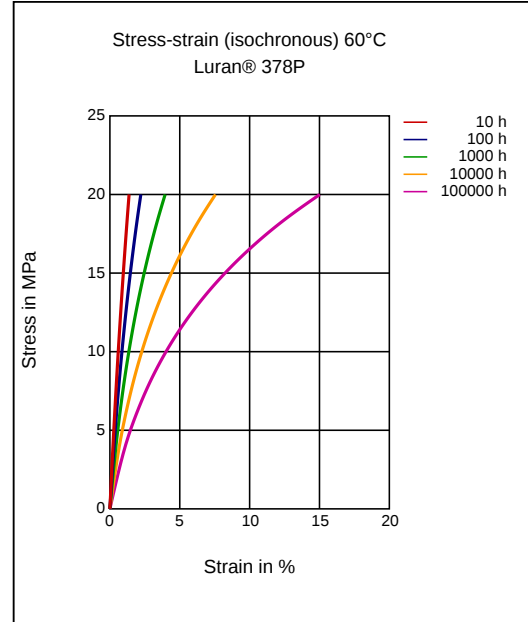
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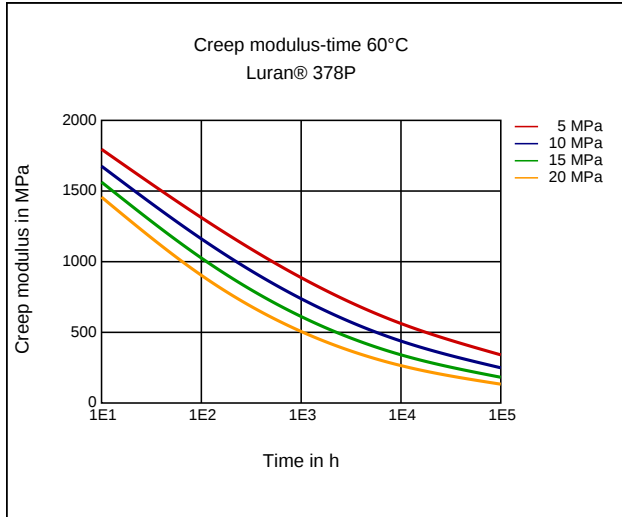
Creep modulus-time 40 °C



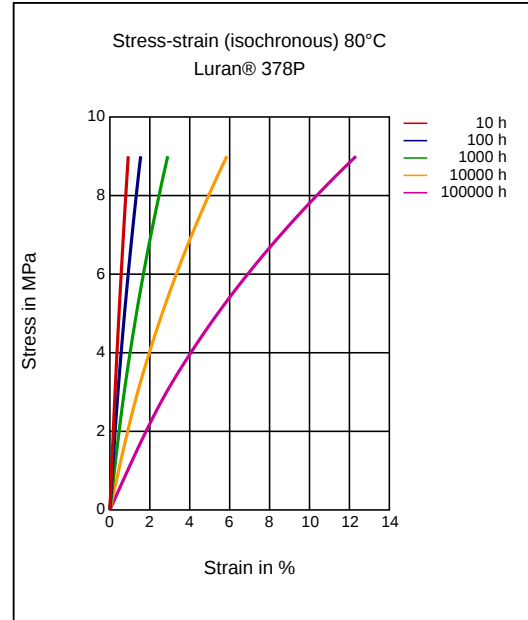
Stress-strain (isochronous) 60 °C



Creep modulus-time 60 °C



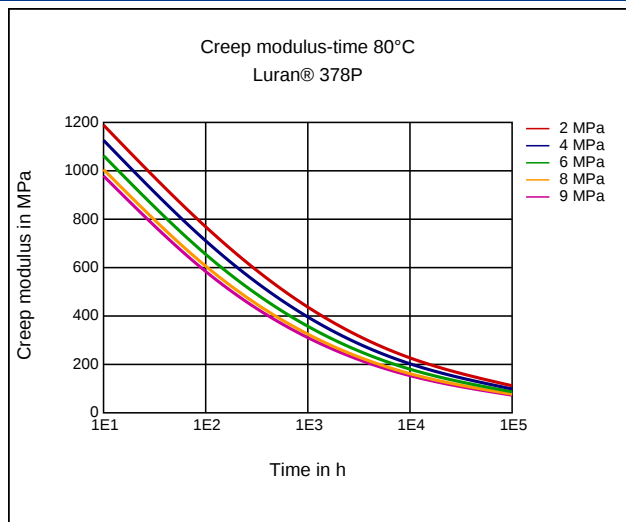
Stress-strain (isochronous) 80 °C



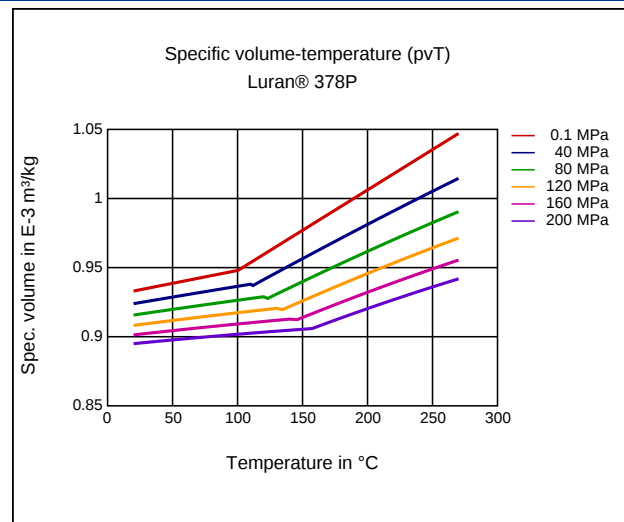
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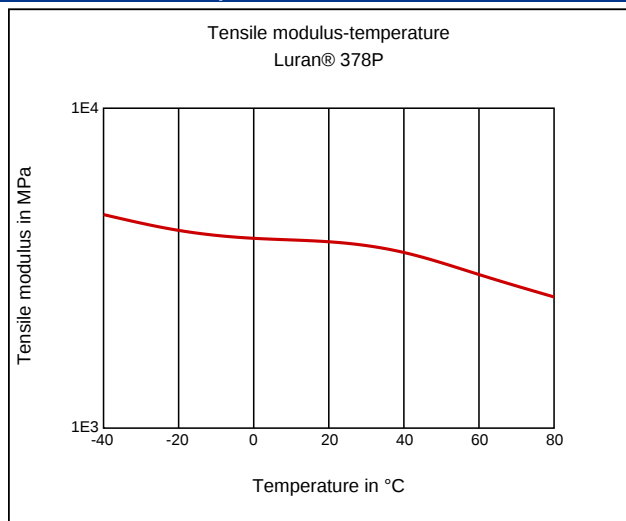
Creep modulus-time 80 °C



Specific volume-temperature (pvT)



Tensile Modulus-Temperature



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Pre-drying, Temperature: 80 °C

Pre-drying, Time: 2 - 4h

PROCESSING

Melt temperature, range: 220 - 260 °C

Mold temperature, range: 40 - 80 °C

Special Characteristics

Transparent

Chemical Media Resistance

Acids

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- ✓ 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)
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