

Luran® S 797SE

ASA

INEOS Styrolution

Luran® S 797SE acrylonitrile styrene acrylate (ASA) polymer features high surface quality and good impact strength including enhanced colour fastness. The product delivers superior long-term performance when exposed to UV irradiation and additionally provide excellent chemical resistance. Luran® S 797SE is optimized for extrusion applications. This grade offers the highest impact strength within the Luran® S product line.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	5.5	cm³/10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2000	MPa	ISO 527
Yield stress	42	MPa	ISO 527
Yield strain	3.5	%	ISO 527
Nominal strain at break	11	%	ISO 527
Notched Impact Strength (Charpy), +23°C	40	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	9	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	95	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	100	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	90	°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	1.65	%	Sim. to ISO 62
Humidity absorption	0.35	%	Sim. to ISO 62
Density	1070	kg/m³	ISO 1183

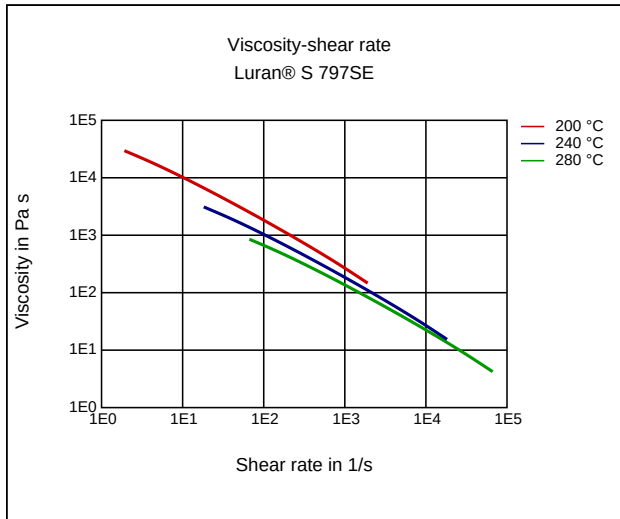
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	967	kg/m³	-
Thermal Conductivity of Melt	0.204	W/(m K)	-
Spec. heat capacity of melt	2830	J/(kg K)	-

Luran® S 797SE ASA

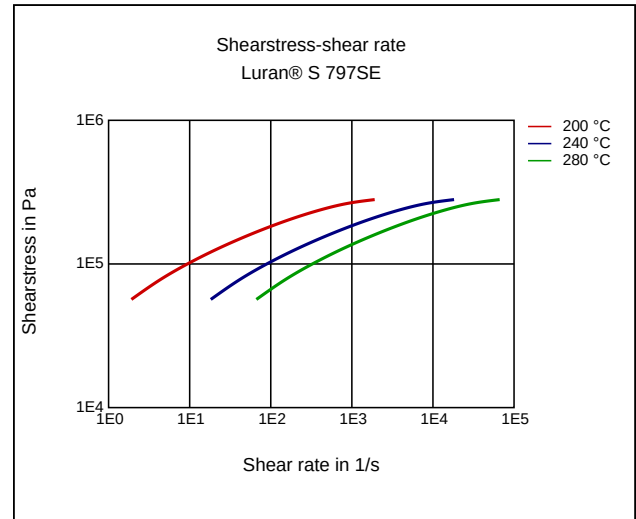
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Diagrams

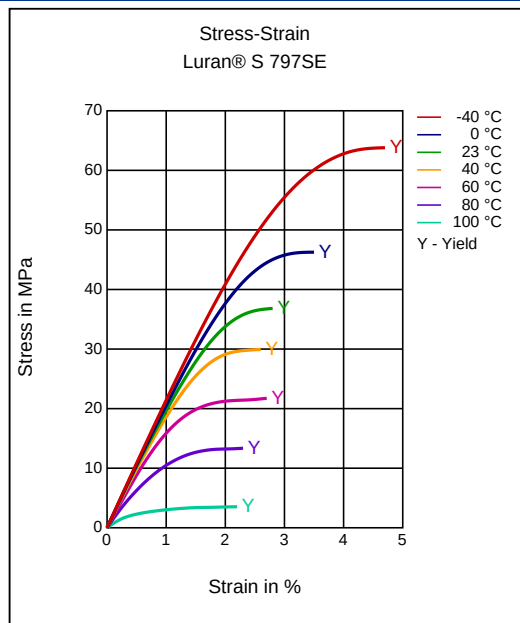
Viscosity-shear rate



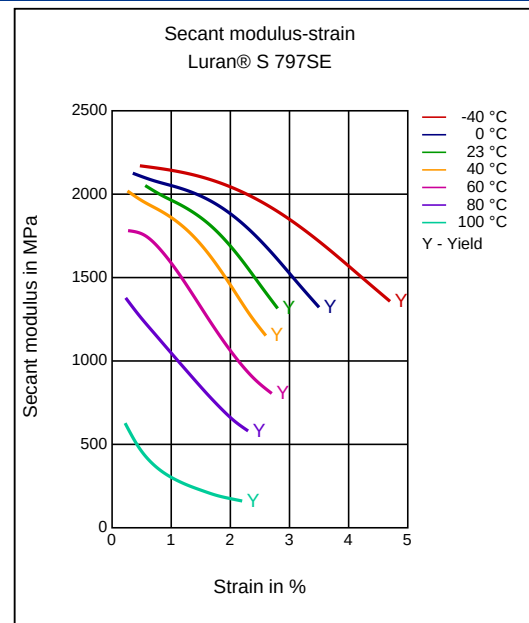
Shearstress-shear rate



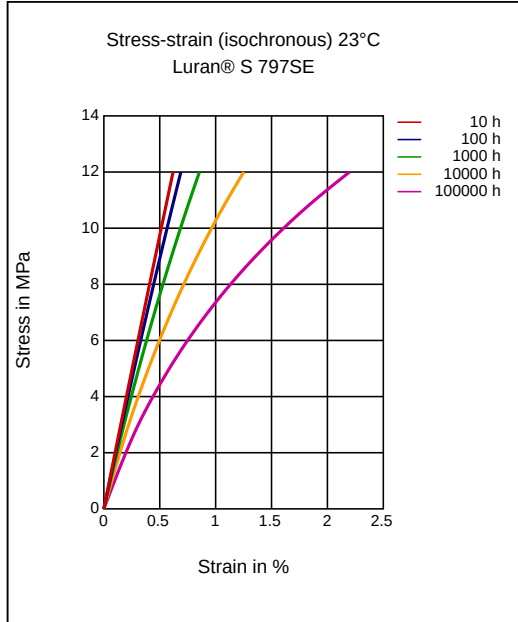
Stress-strain



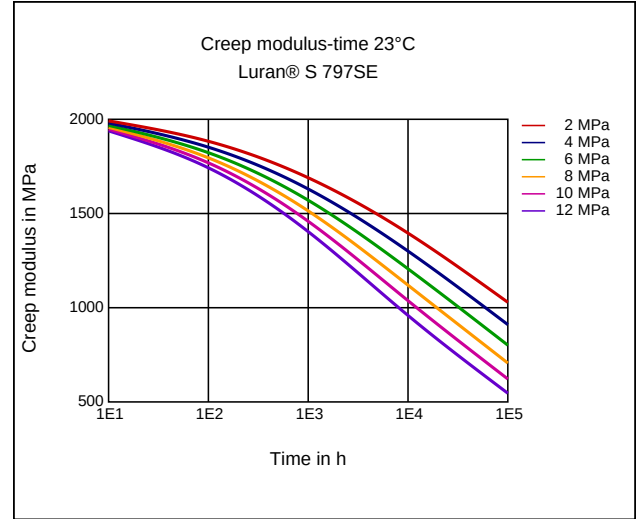
Secant modulus-strain



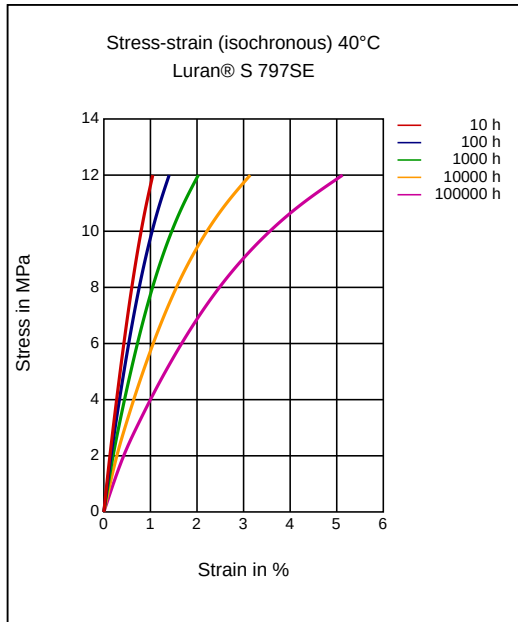
Stress-strain (isochronous) 23°C



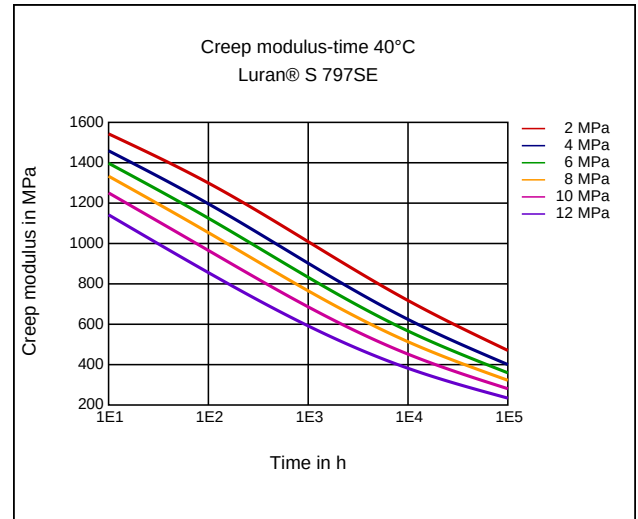
Creep modulus-time 23°C



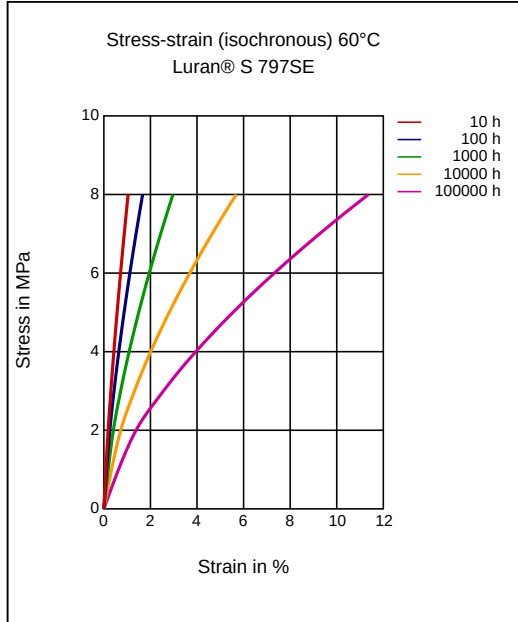
Stress-strain (isochronous) 40°C



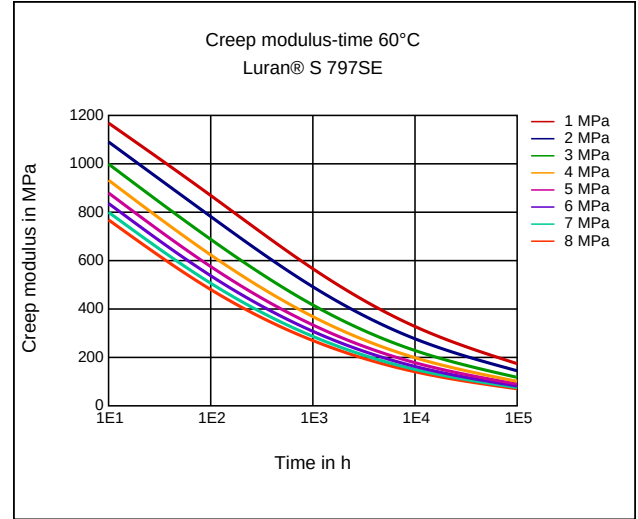
Creep modulus-time 40°C



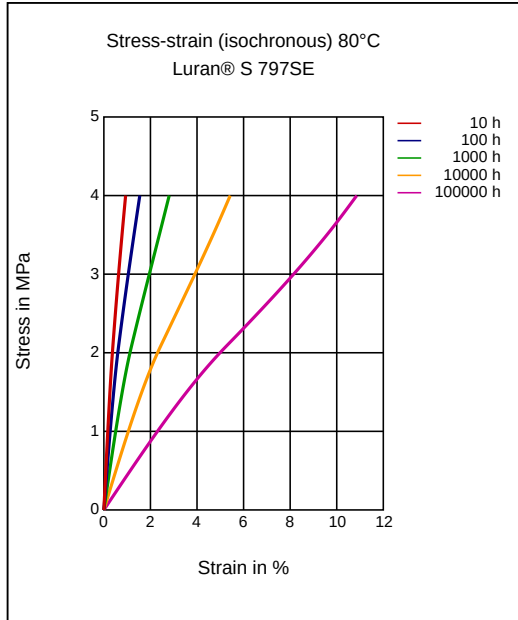
Stress-strain (isochronous) 60°C



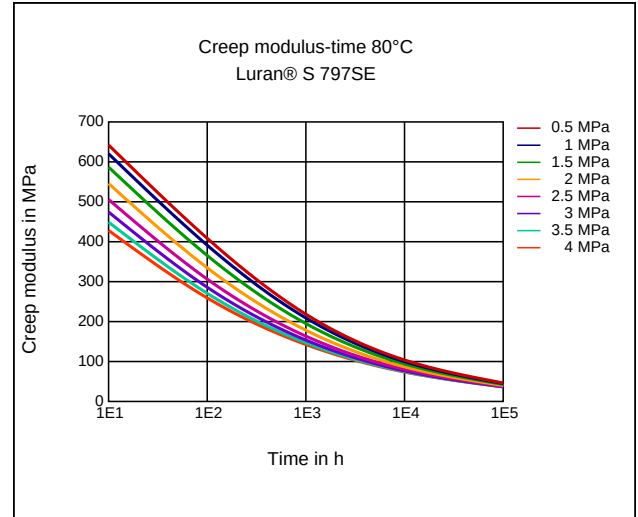
Creep modulus-time 60°C



Stress-strain (isochronous) 80°C



Creep modulus-time 80°C

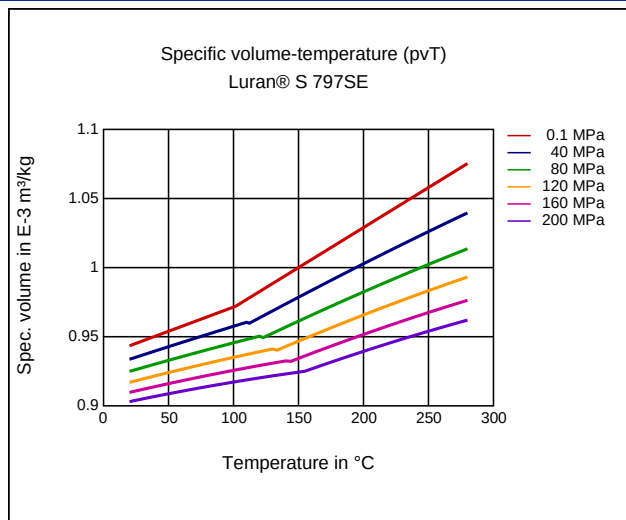


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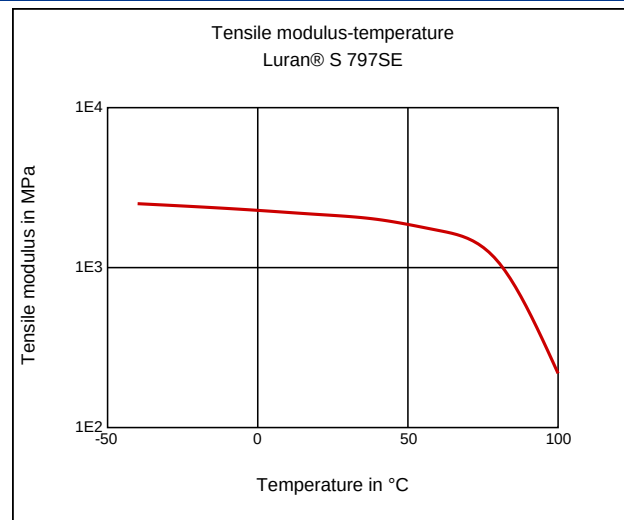
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Specific volume-temperature (pvT)



Tensile Modulus-Temperature



Characteristics

Processing

Profile Extrusion, Sheet Extrusion, Other Extrusion

Delivery form

Pellets

Additives

Release agent

Special Characteristics

Light stabilized or stable to light, UV stablized, Heat aging stabilized

Injection Molding

Other Extrusion

PREPROCESSING

Pre-drying, Temperature: 80°C

Pre-drying, Time: 2 - 4h

PROCESSING

Extrusion, Pipes, Melt temperature: 200 - 240°C

Profile extrusion

PREPROCESSING

Pre-drying, Temperature: 80°C

Pre-drying, Time: 2 - 4h

PROCESSING

Extrusion, Profiles, Melt temperature: 200 - 240°C

Sheet Extrusion

PREPROCESSING

Pre-drying, Temperature: 80°C

Pre-drying, Time: 2 - 4h

PROCESSING

Extrusion, Plates, Melt temperature: 210 - 250°C

Chemical Media Resistance

Acids

- ✓ Acetic Acid (5% by mass) (23°C)
- ✓ Citric Acid solution (10% by mass) (23°C)

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- ✓ Lactic Acid (10% by mass) (23°C)
- ✓ Hydrochloric Acid (36% by mass) (23°C)
- ✓ Nitric Acid (40% 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

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

Hydrocarbons

- ✓ n-Hexane (23°C)
- ✓ iso-Octane (23°C)

Mineral oils

- ✓ SAE 10W40 multigrade motor oil (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)
- ✓ Zinc Chloride solution (50% by mass) (23°C)

Other

- ✓ Water (23°C)
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