INEOS Styrolution

ALBIS

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

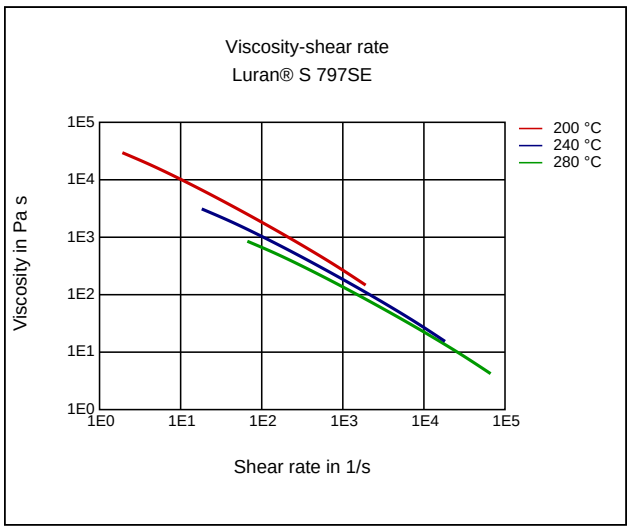
Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	95	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	100	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	90	°C	ISO 306
Burning Behav. at 1.5 mm Nom. Thickn.	HB	class	UL 94
Thickness tested	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

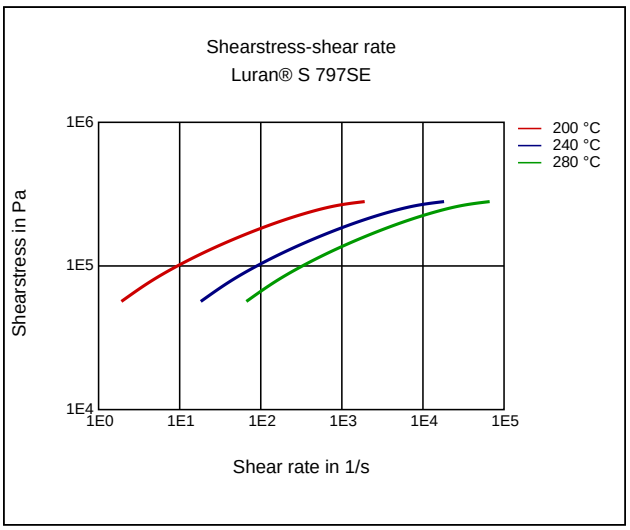
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	967	kg/m³	-
Thermal Conductivity of Melt	0.204	W/(m K)	-
Spec. heat capacity of melt	2830	J/(kg K)	-

Diagrams

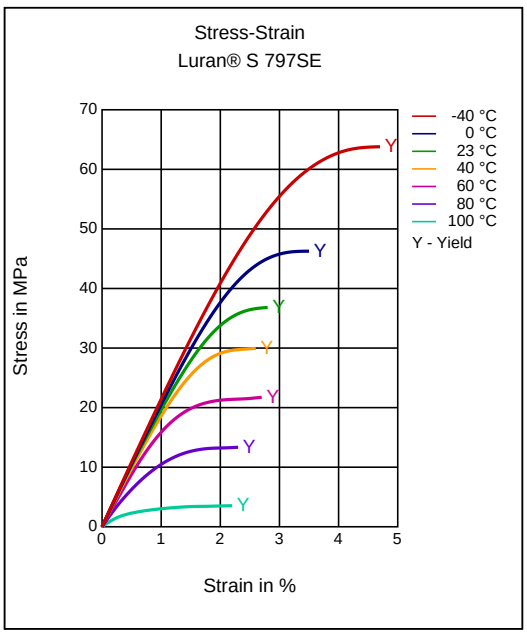
Viscosity-shear rate



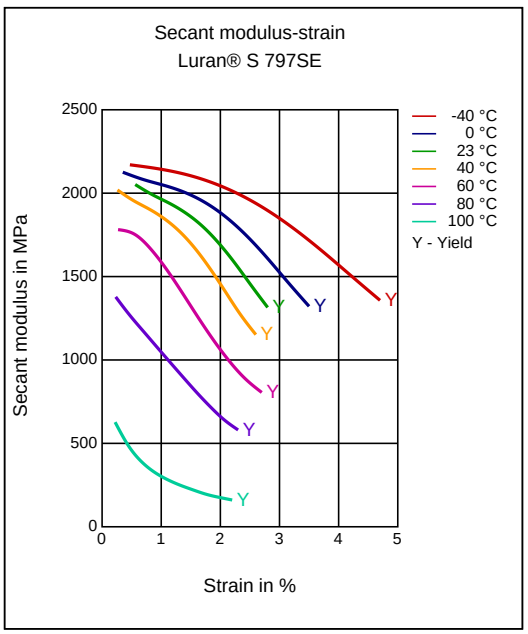
Shearstress-shear rate



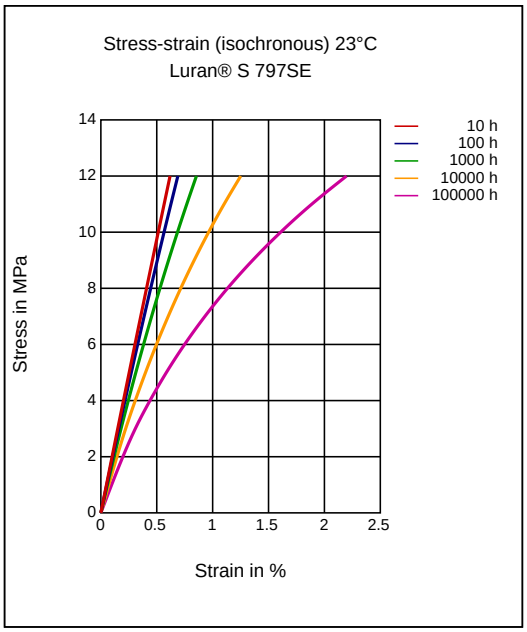
Stress-strain



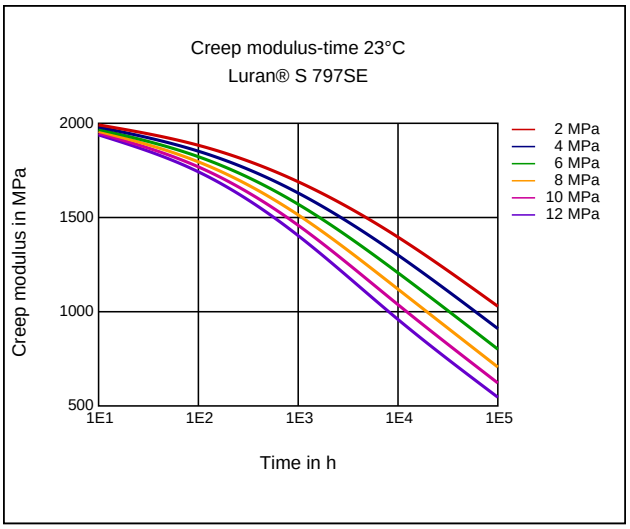
Secant modulus-strain



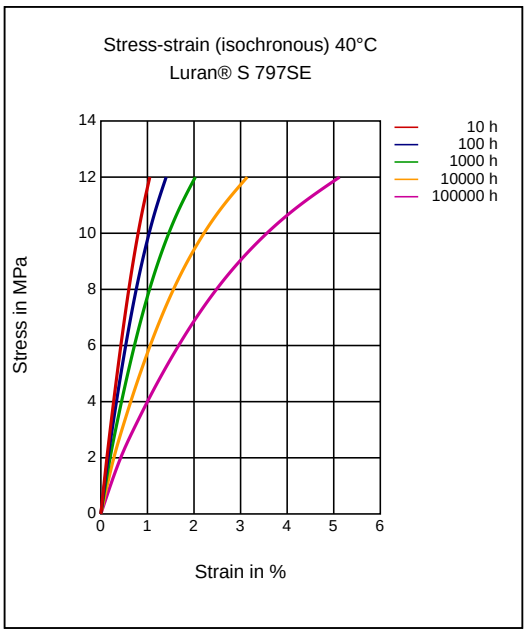
Stress-strain (isochronous) 23 °C



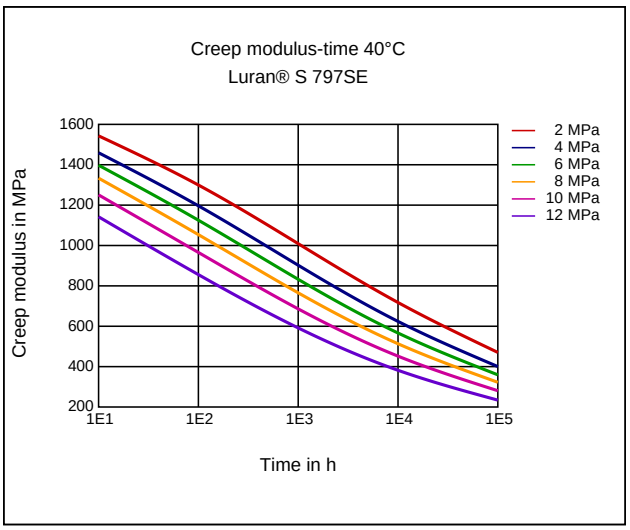
Creep modulus-time 23 °C



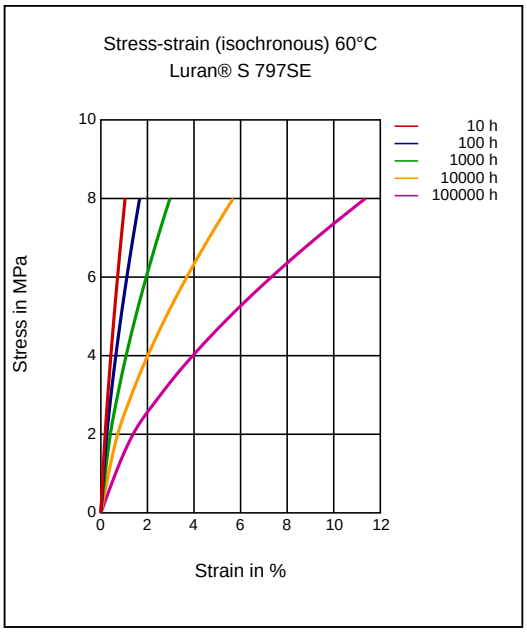
Stress-strain (isochronous) 40 °C



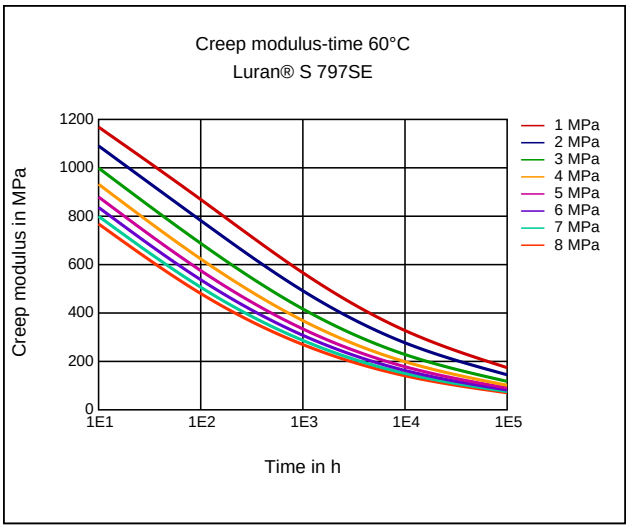
Creep modulus-time 40 °C



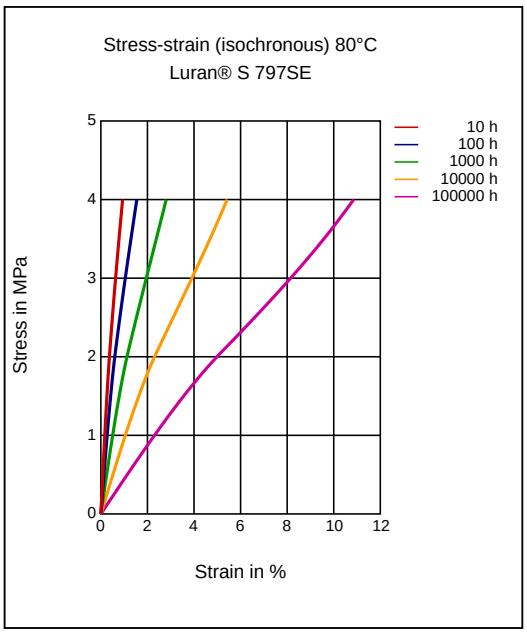
Stress-strain (isochronous) 60 °C



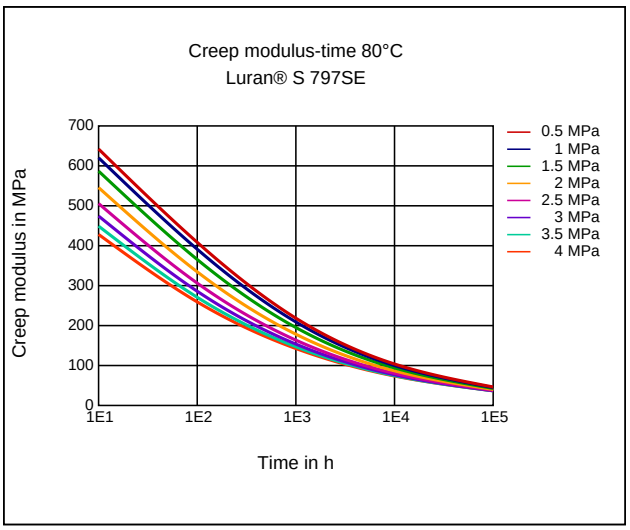
Creep modulus-time 60 °C



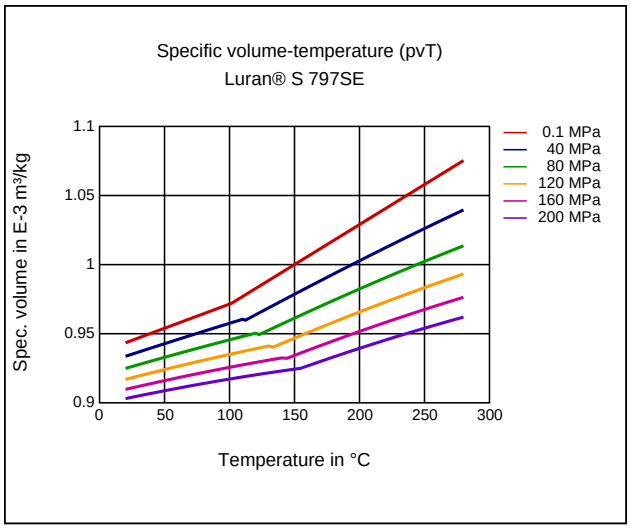
Stress-strain (isochronous) 80 °C



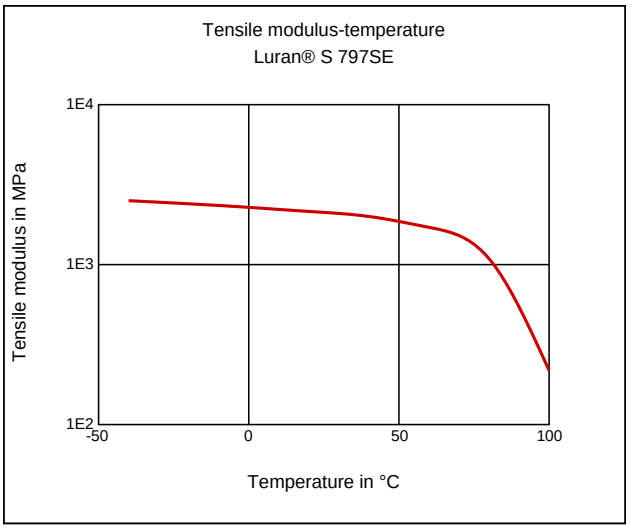
Creep modulus-time 80 °C



Specific volume-temperature (pvT)



Tensile Modulus-Temperature



Characteristics

Processing
Profile Extrusion, Sheet Extrusion, Other Extrusion

Additives
Release agent

Delivery form
Pellets

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)

- ✔ 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)

Disclaimer

Liability Exclusion
These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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