

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 |
|----------------------------|-------|-----------|---------------|
| <b>ISO Data</b>            |       |           |               |
| Melt volume-flow rate, MVR | 5.5   | cm³/10min | ISO 1133      |
| Temperature                | 220   | °C        | -             |
| Load                       | 10    | kg        | -             |

| Mechanical Properties                   | Value | Unit  | Test Standard |
|-----------------------------------------|-------|-------|---------------|
| <b>ISO Data</b>                         |       |       |               |
| 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   |

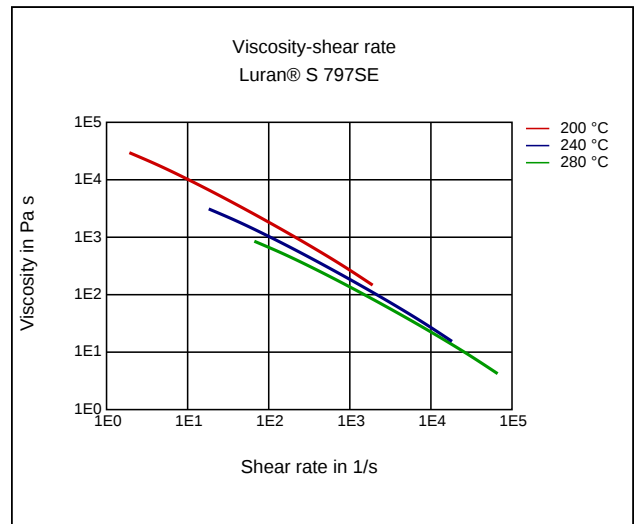
| Thermal Properties                        | Value | Unit  | Test Standard |
|-------------------------------------------|-------|-------|---------------|
| <b>ISO Data</b>                           |       |       |               |
| Temp. of deflection under load (1.80 MPa) | 95    | °C    | ISO 75-1/-2   |
| 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  |
|---------------------|-------|-------|----------------|
| <b>ISO Data</b>     |       |       |                |
| Water Absorption    | 1.65  | %     | Sim. to ISO 62 |
| Humidity absorption | 0.35  | %     | Sim. to ISO 62 |
| Density             | 1070  | kg/m³ | ISO 1183       |

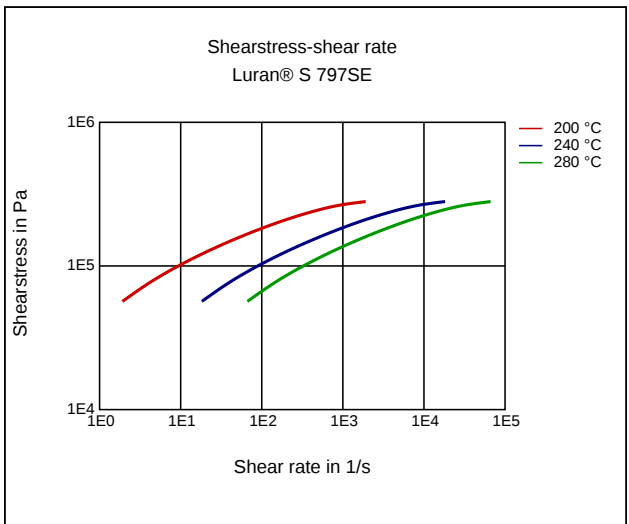
| Rheological calculation properties | Value | Unit     | Test Standard |
|------------------------------------|-------|----------|---------------|
| <b>ISO Data</b>                    |       |          |               |
| Density of melt                    | 967   | kg/m³    | -             |
| Thermal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

Diagrams

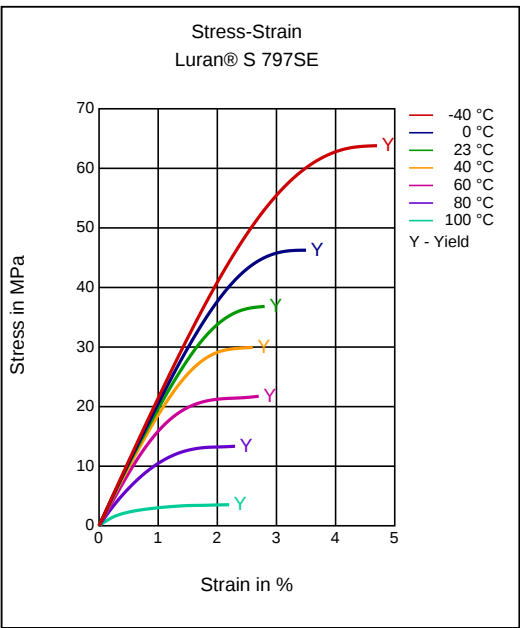
Viscosity-shear rate



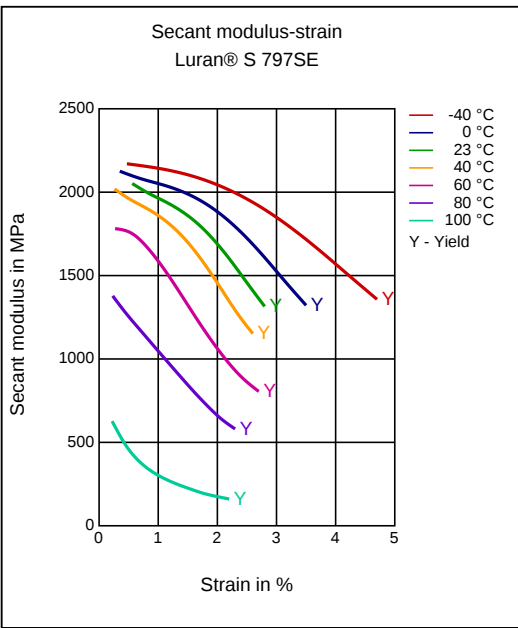
Shearstress-shear rate



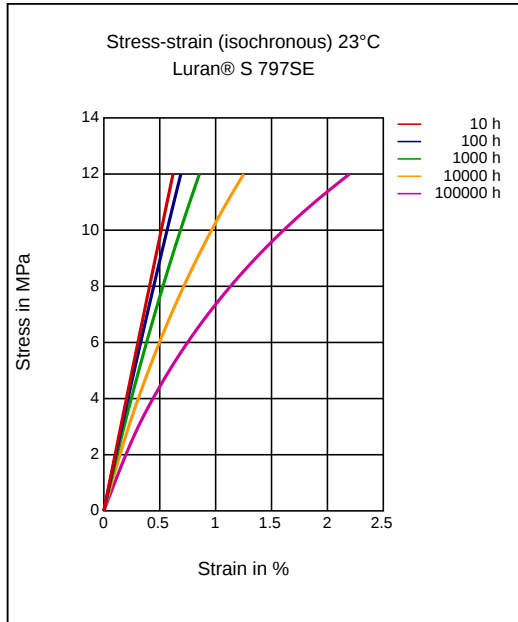
Stress-strain



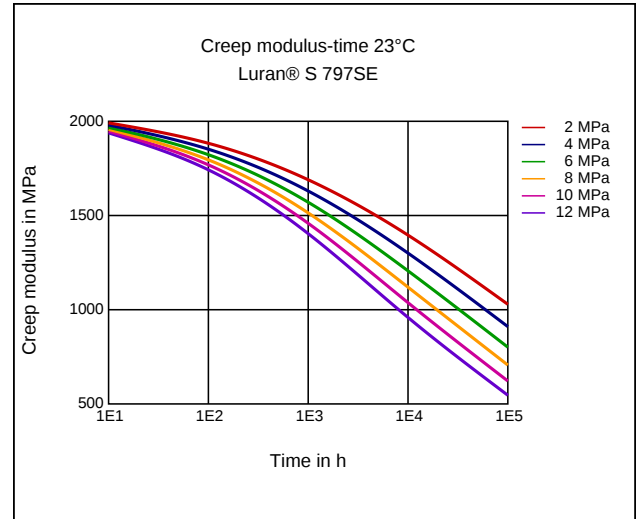
Secant modulus-strain



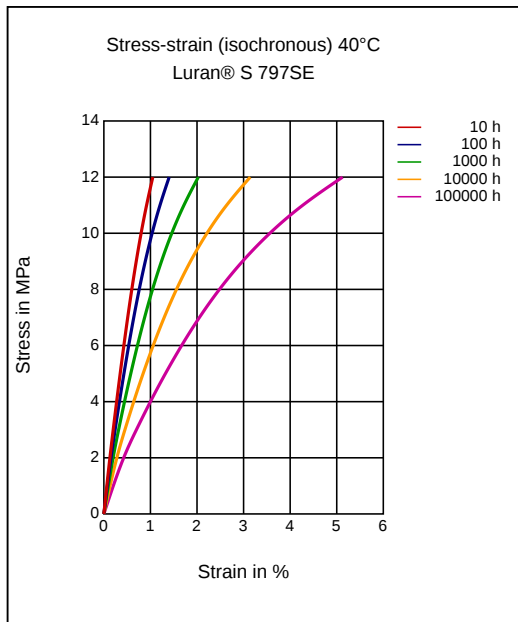
**Stress-strain (isochronous) 23°C**



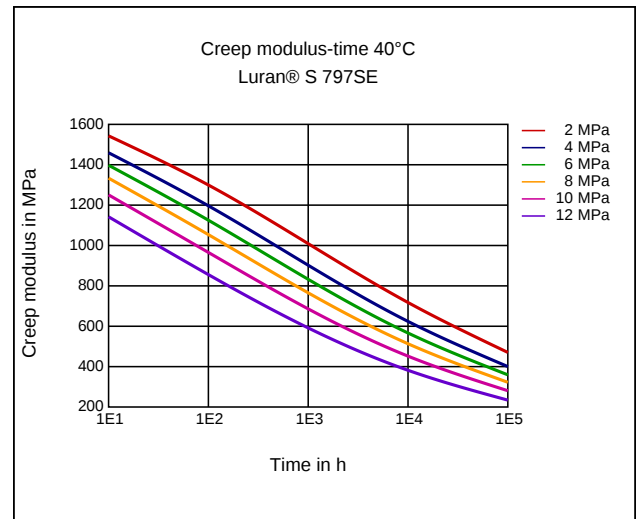
**Creep modulus-time 23°C**



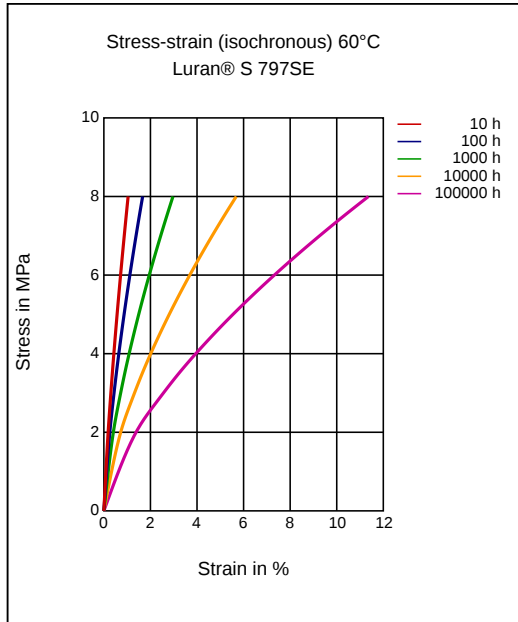
**Stress-strain (isochronous) 40°C**



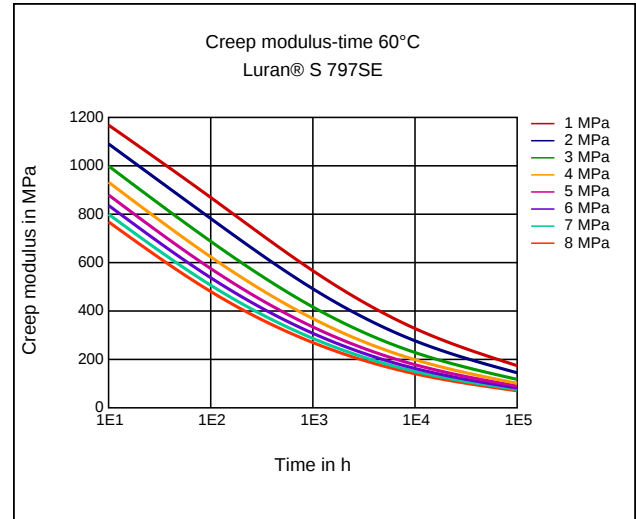
**Creep modulus-time 40°C**



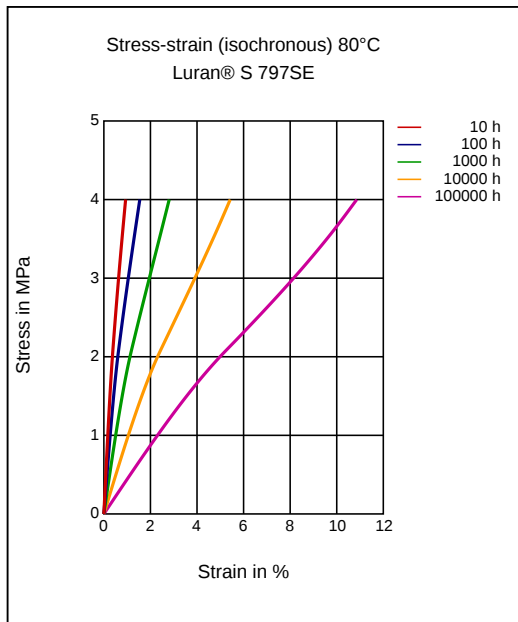
**Stress-strain (isochronous) 60 °C**



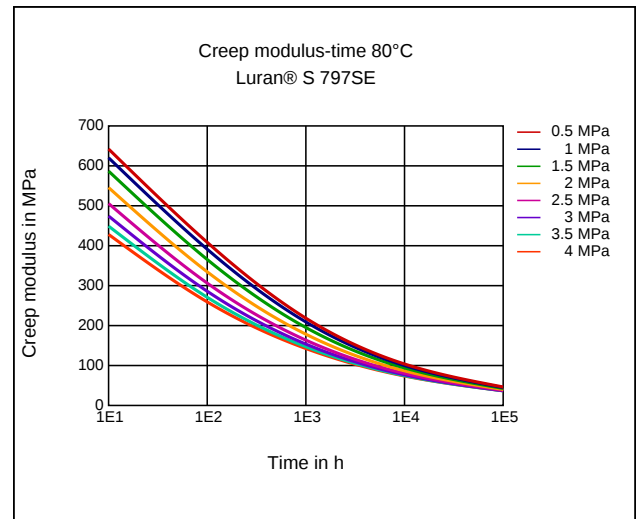
**Creep modulus-time 60 °C**



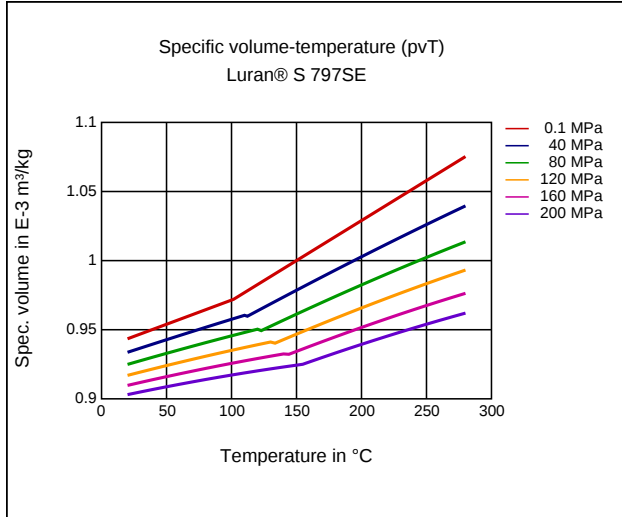
**Stress-strain (isochronous) 80 °C**



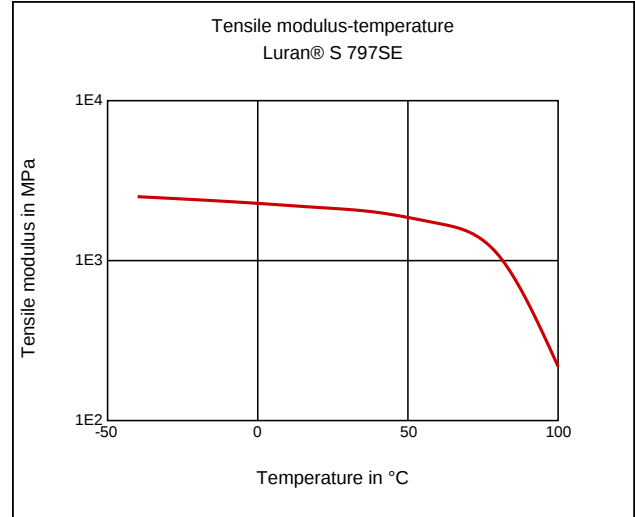
**Creep modulus-time 80 °C**



#### Specific volume-temperature (pvT)



#### Tensile Modulus-Temperature



#### Characteristics

##### Processing

Profile Extrusion, Sheet Extrusion, Other Extrusion

##### 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)

- ✓ 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.**

Any information given on the chemical and physical characteristics of our products, including, without limitation, technical advice on applications, whether verbally, in writing or by testing the product, is given to the best of our knowledge and in good faith and does not exempt the buyer from carrying out their own investigations and tests in order to ascertain the product's specific suitability for the purpose intended.

The buyer is solely responsible for confirming the suitability of the product for a particular application, its utilization and processing and must observe any applicable laws and government regulations. **NO EXPRESS OR IMPLIED RECOMMENDATION OR WARRANTY IS GIVEN WITH REGARD TO THE SUITABILITY OF THE PRODUCT FOR A PARTICULAR APPLICATION, SUCH AS, BUT NOT LIMITED TO, SAFETY-CRITICAL COMPONENTS OR SYSTEMS.**

**Healthcare uses:** the supply of any product by ALBIS for any medical, pharmaceutical or diagnostic application is conditional to an assessment by ALBIS in terms of compliance with ALBIS' internal risk management policy – even for products which are in general designated for use in Healthcare applications.

**Important:** irrespective of product type or designation, ALBIS does not recommend or support the use of any products it supplies which fall into the following medical, pharmaceutical or diagnostic application categories:

- risk class III applications according to EU directive 93/42/EEC
- any bodily implant application for greater than 30 days
- any critical component in any medical device that supports or sustains human life.

At all times, our standard terms and conditions of sale apply.