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INEOS Styrolution

ALBIS

Luran® S 778TE

ASA INEOS Styrolution

Luran® S 778TE 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 778TE is an extrusion grade with enhanced heat resistance and best chemical resistance among the Luran® S grades.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	5	cm³/10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2500	MPa	ISO 527
Yield stress	54	MPa	ISO 527
Yield strain	3.4	%	ISO 527
Nominal strain at break	8	%	ISO 527
Impact Strength (Charpy), +23°C	220	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	15	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	4	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	103	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	106	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	104	°C	ISO 306
Burning Behav. at 1.5 mm Nom. Thickn.	HB	class	UL 94
Thickness tested	1.5	mm	-

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

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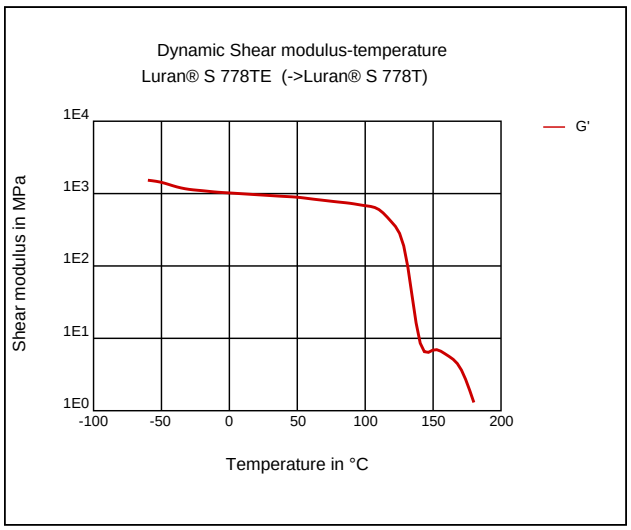
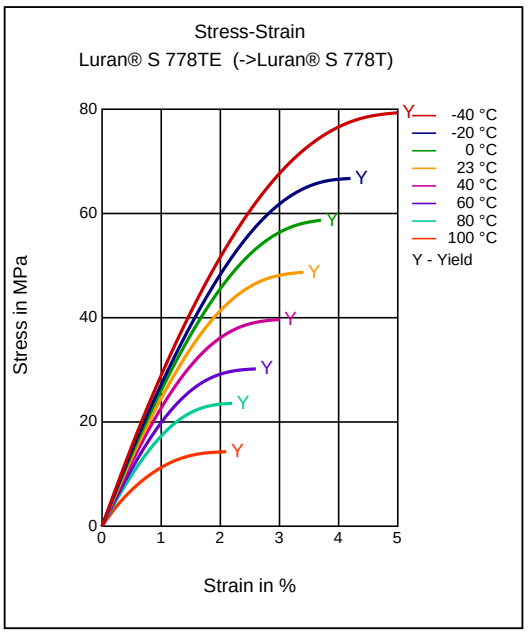
Diagrams

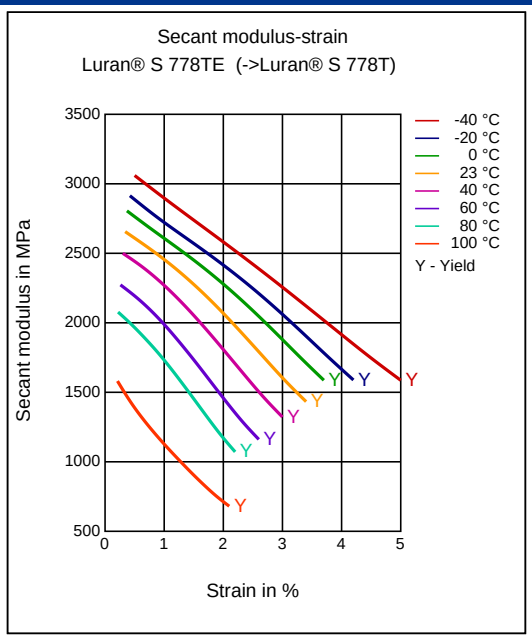
Dynamic Shear modulus-temperature



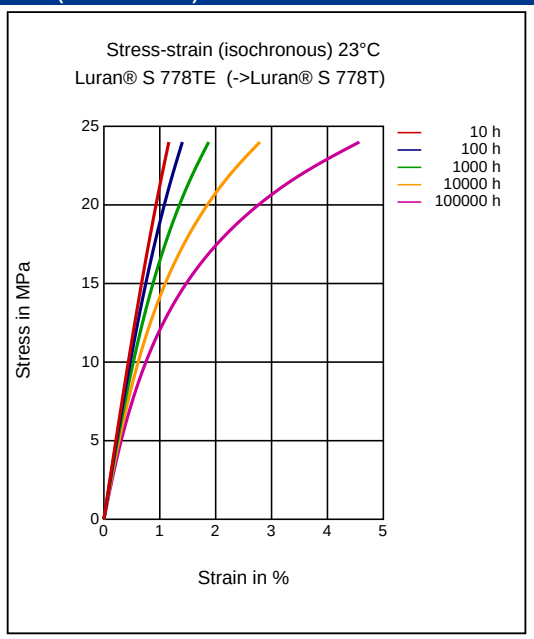
Stress-strain



Secant modulus-strain



Stress-strain (isochronous) 23 °C



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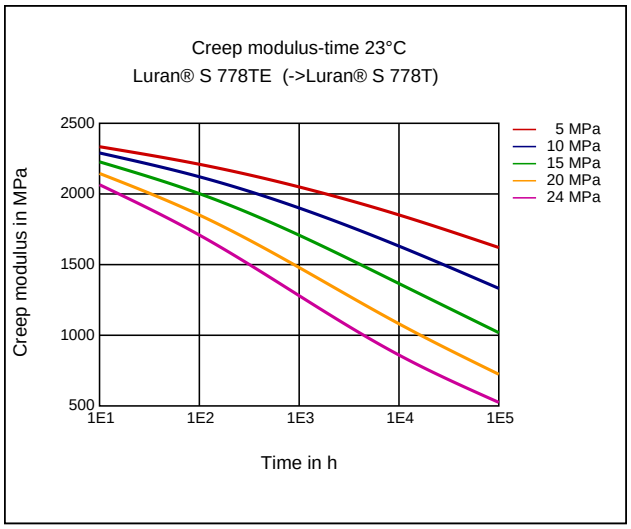
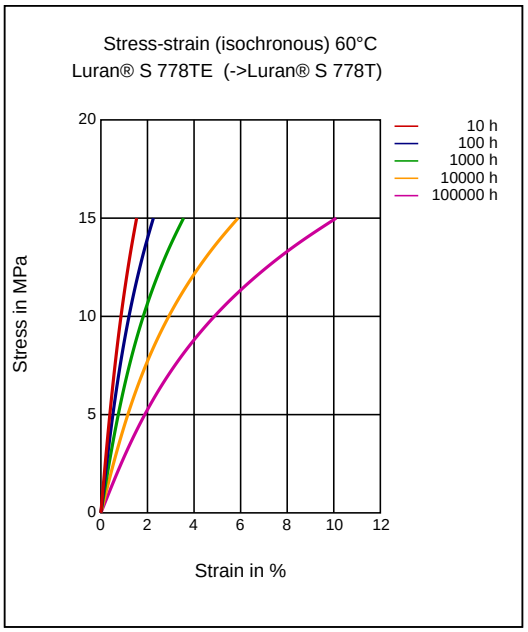
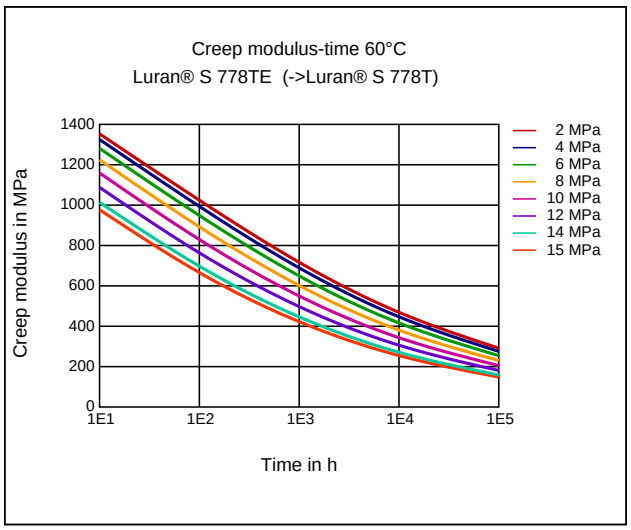
Creep modulus-time 23 °C



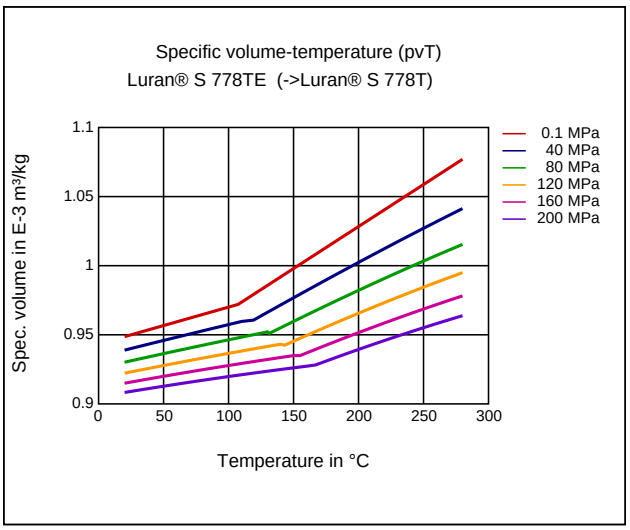
Stress-strain (isochronous) 60 °C



Creep modulus-time 60 °C



Specific volume-temperature (pvT)



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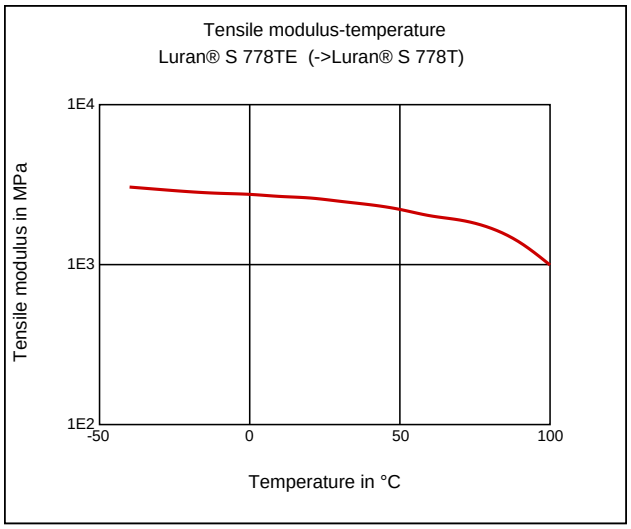
Tensile Modulus-Temperature



Characteristics

Processing

Profile Extrusion, Sheet Extrusion, Other Extrusion, Thermoforming

Special Characteristics

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

Delivery form

Pellets

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: 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)

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- ✔ 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)