

Luran® S KR2861/1C
 (ASA+PC)

INEOS Styrolution

Luran® SC KR2861/1C is a blend of ASA with PC, shows high heat and high impact resistance and long-term property retention. Its UV resistance is not only sufficient for all kind of interior applications – incl. unpainted surfaces in light colors – but also for exterior parts with medium weatherability requirements. Luran® S KR2861/1C provides very good impact properties at low temperatures as well as high toughness also in combination with a very high concentration of colorants.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	14	cm³/10min	ISO 1133
Temperature	260	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2300	MPa	ISO 527
Yield stress	53	MPa	ISO 527
Yield strain	4.9	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Notched Impact Strength (Charpy), +23°C	65	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	20	kJ/m²	ISO 179/1eA

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	106	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	125	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	120	°C	ISO 306
Burning Behav. at 1.5 mm Nom. Thickn.	HB	class	UL 94
Thickness tested	1.5	mm	-
UL recognition	yes	-	-

Other Properties	Value	Unit	Test Standard
ISO Data			
Water Absorption	0.9	%	Sim. to ISO 62
Humidity absorption	0.25	%	Sim. to ISO 62
Density	1150	kg/m³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Thermal Conductivity of Melt	0.18	W/(m K)	-

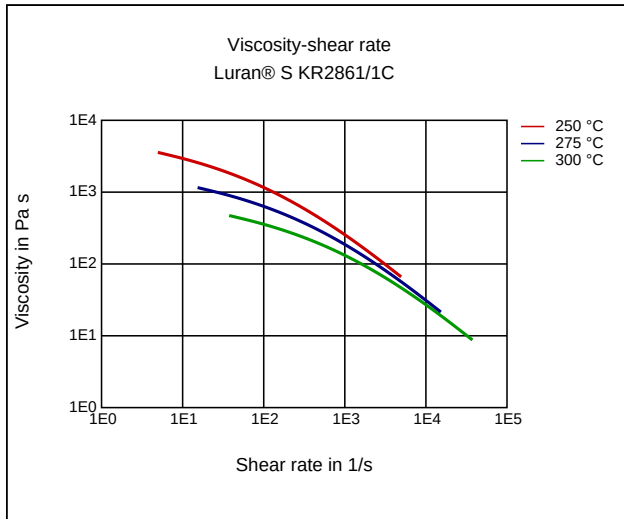
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 110	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	260 - 300	°C	-
Mold temperature	60 - 90	°C	-

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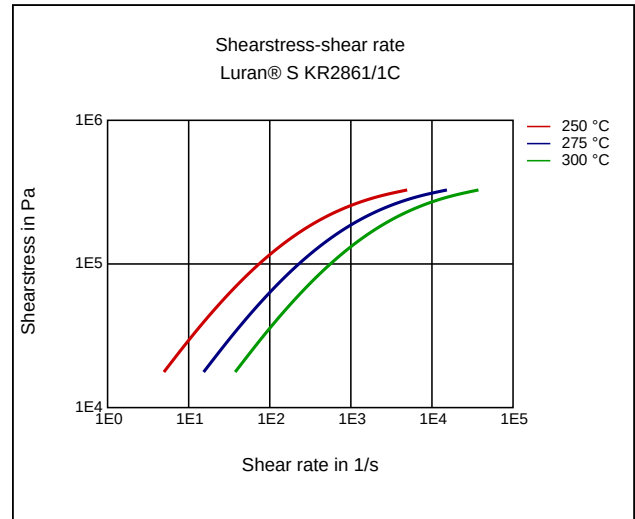
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Diagrams

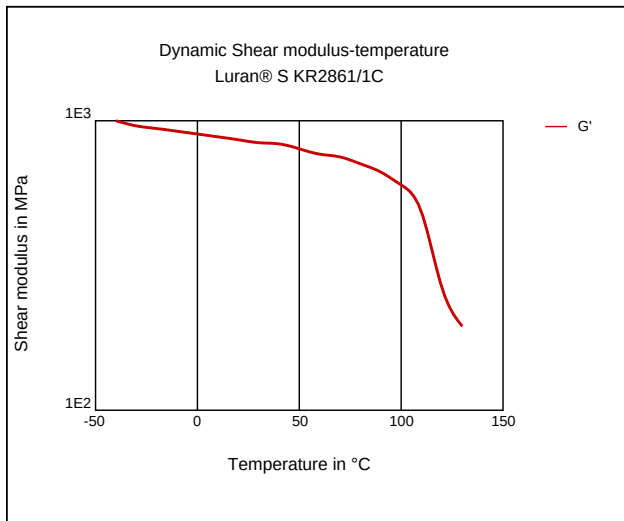
Viscosity-shear rate



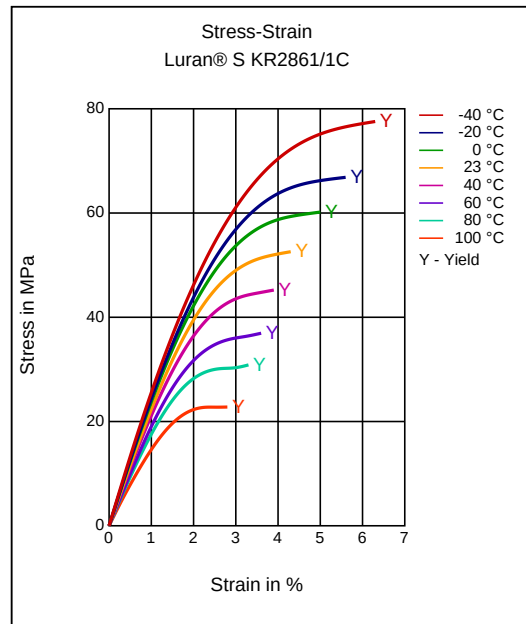
Shearstress-shear rate



Dynamic Shear modulus-temperature



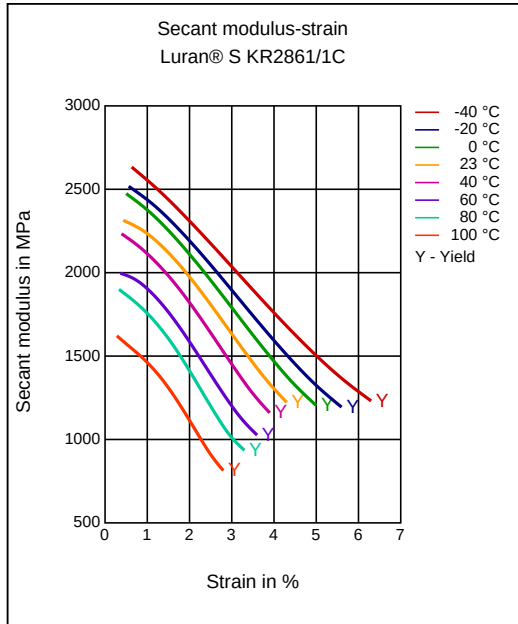
Stress-strain



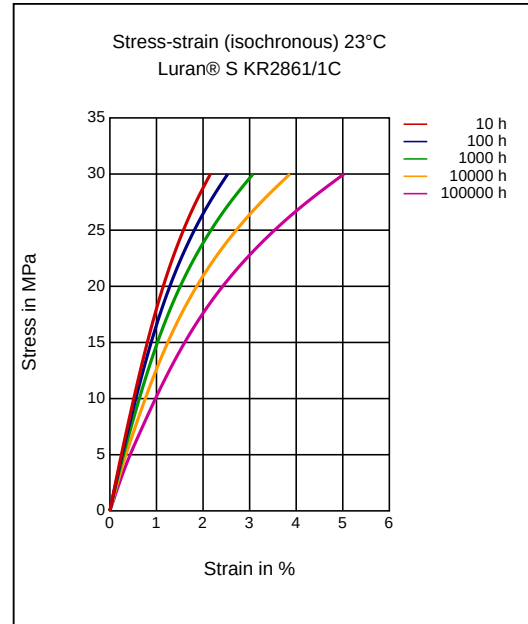
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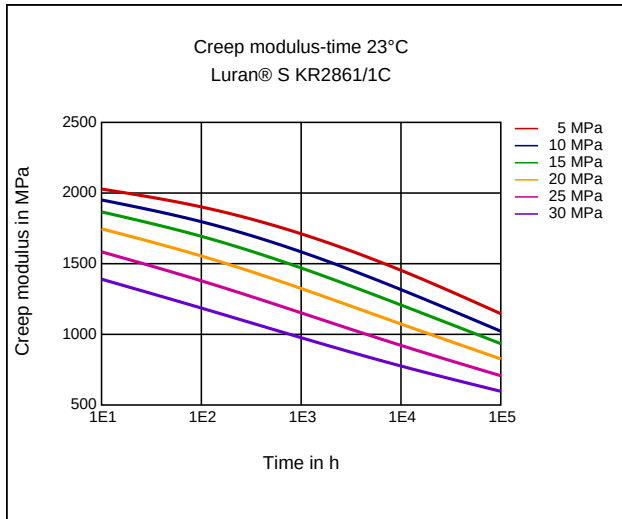
Secant modulus-strain



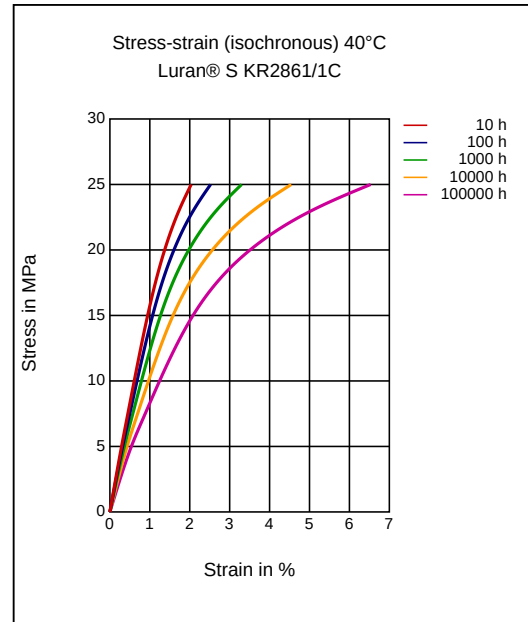
Stress-strain (isochronous) 23 °C



Creep modulus-time 23 °C



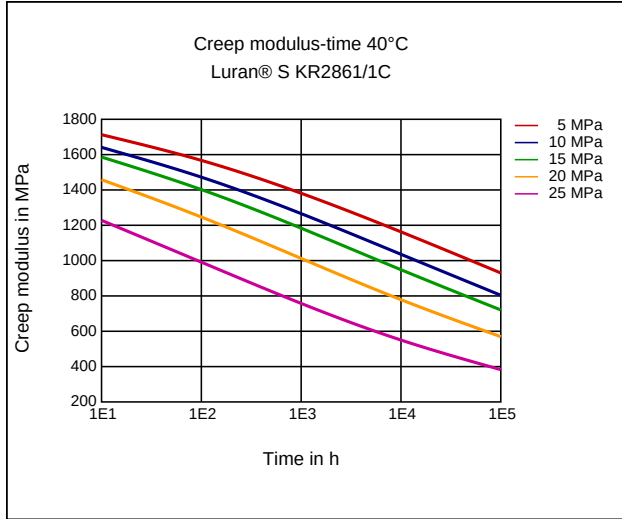
Stress-strain (isochronous) 40 °C



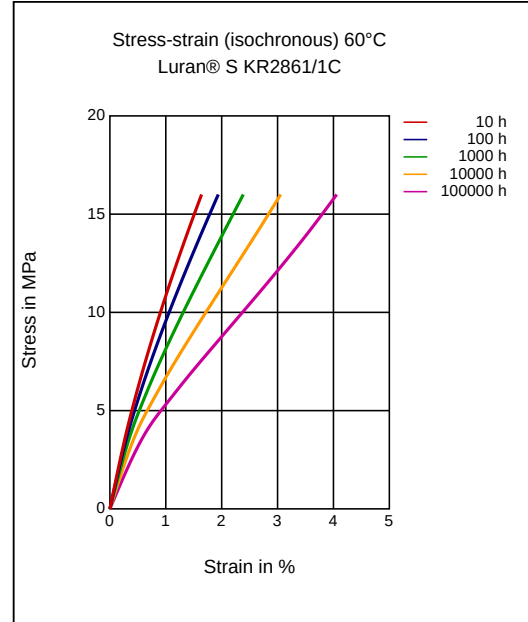
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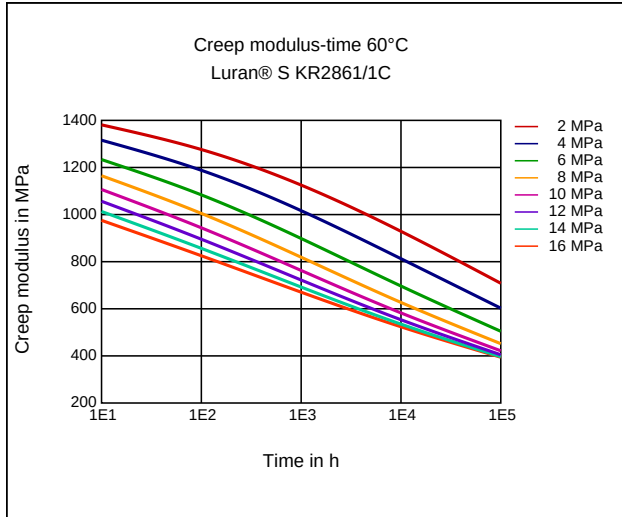
Creep modulus-time 40°C



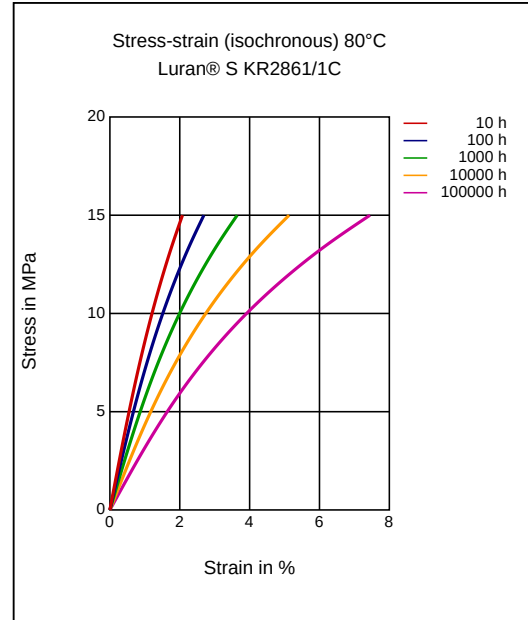
Stress-strain (isochronous) 60°C



Creep modulus-time 60°C



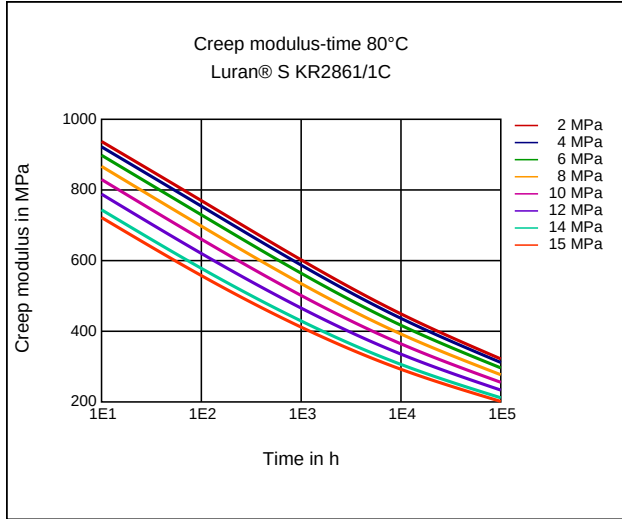
Stress-strain (isochronous) 80°C



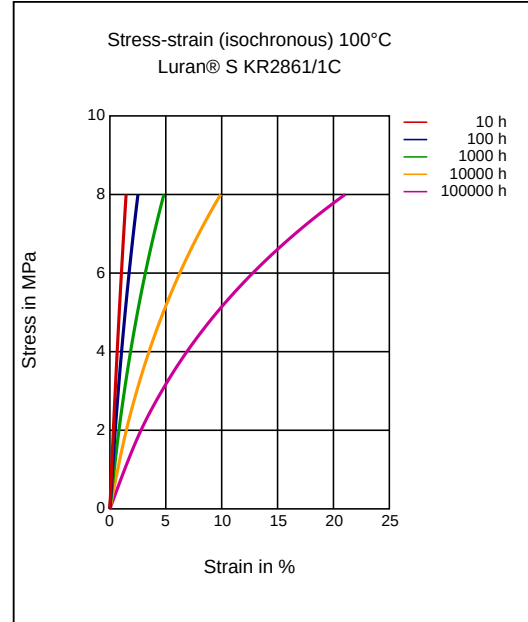
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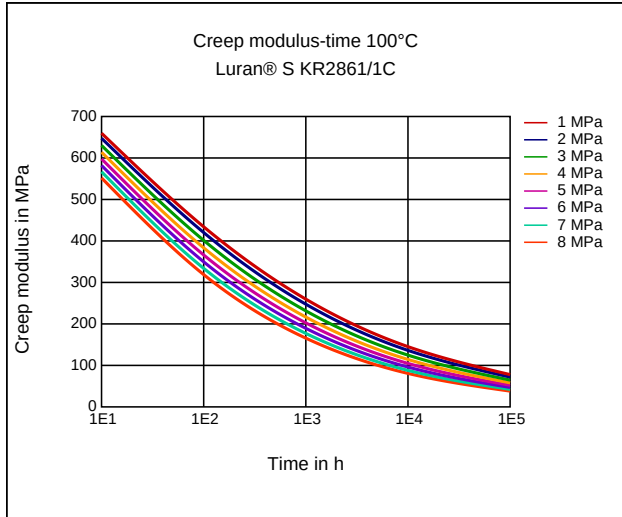
Creep modulus-time 80°C



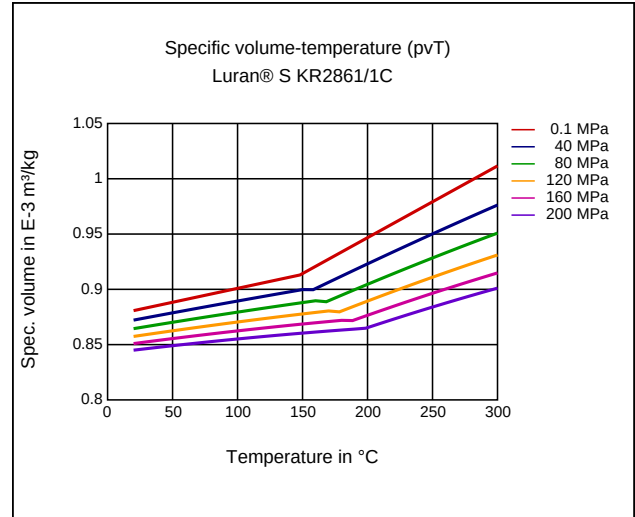
Stress-strain (isochronous) 100°C



Creep modulus-time 100°C



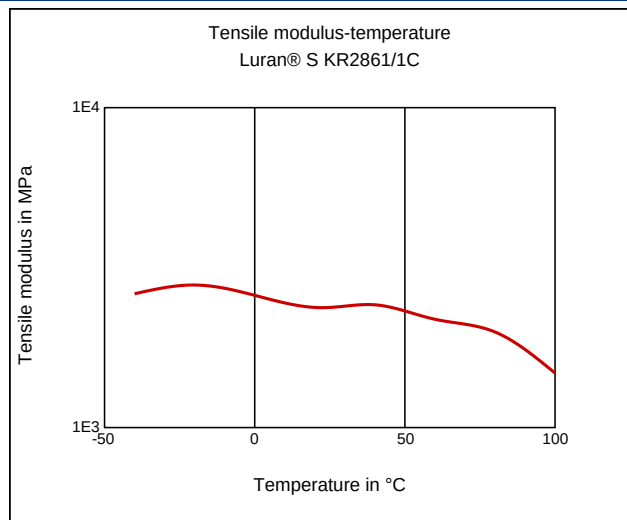
Specific volume-temperature (pvT)



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Tensile Modulus-Temperature



Characteristics

Processing

Injection Molding, Profile Extrusion, Sheet Extrusion, Blow Molding, Thermoforming

Delivery form

Pellets

Additives

Release agent

Special Characteristics

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

Injection Molding

PREPROCESSING

Pre-drying, Temperature: 100 - 110 °C

Pre-drying, Time: 2 - 4h

PROCESSING

Melt temperature, range: 260 - 300 °C

Mold temperature, range: 60 - 90 °C

Profile extrusion

PREPROCESSING

Pre-drying, Temperature: 100 - 110 °C

Pre-drying, Time: 2 - 4h

PROCESSING

Melt temperature: 200 - 240 °C

Sheet Extrusion

PREPROCESSING

Pre-drying, Temperature: 100 - 110 °C

Pre-drying, Time: 2 - 4h

PROCESSING

Melt temperature: 250 - 280 °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)
- ✓ Nitric Acid (40% by mass) (23 °C)

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- ✓ Sulfuric Acid (38% by mass) (23°C)
- ✓ Sulfuric Acid (5% by mass) (23°C)
- ✓ Chromic Acid solution (40% 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)

Standard Fuels

- ✓ Standard fuel without alcohol (pref. ISO 1817 Liquid C) (23°C)
- ✓ Standard fuel with alcohol (pref. ISO 1817 Liquid 4) (23°C)
- ✓ 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

- ✓ Water (23°C)
 - ✓ Deionized water (90°C)
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