

Luran® S ECO 757G BC50

ASA

INEOS Styrolution

Luran® S ECO 757G BC50 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 ECO 757G BC50 provides the best flowability within the product line and is therefore in particular suitable for demanding injection molding geometries. Luran® S ECO 757G BC50 is an ISCC compliant product leading to a substitution of fossil source styrene with ISCC certified bio-attributed styrene.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	25	cm ³ /10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2400	MPa	ISO 527
Yield stress	51	MPa	ISO 527
Yield strain	3.3	%	ISO 527
Nominal strain at break	8	%	ISO 527
Notched Impact Strength (Charpy), +23°C	12	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	3	kJ/m ²	ISO 179/1eA
Flexural Modulus (23°C)	2400	MPa	ISO 178
Flexural strength	75	MPa	ISO 178
Ball Indentation Hardness	90	MPa	ISO 2039-1

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	96	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	101	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	97	°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	-	-
ASTM Data			
Thermal Conductivity, solid state	0.0245	W/(m K)	DIN 52612-1

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/m ³	ISO 1183
Bulk density	600	kg/m ³	-

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	960	kg/m ³	-
Thermal Conductivity of Melt	0.206	W/(m K)	-
Spec. heat capacity of melt	2450	J/(kg K)	-
Ejection temperature	88	°C	-

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	240 - 280	°C	-
Mold temperature	40 - 80	°C	-

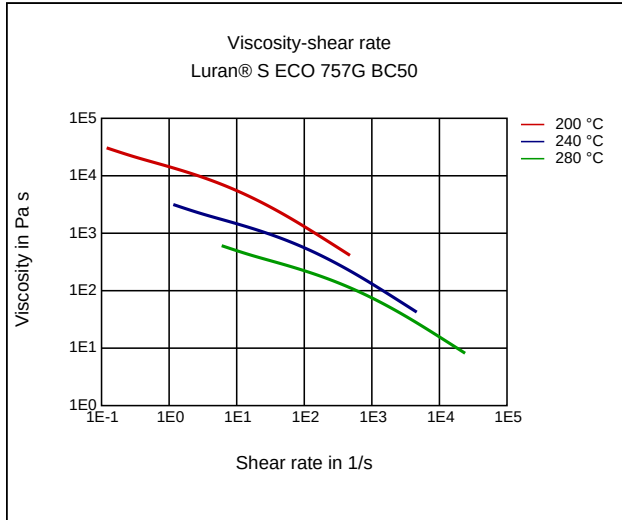
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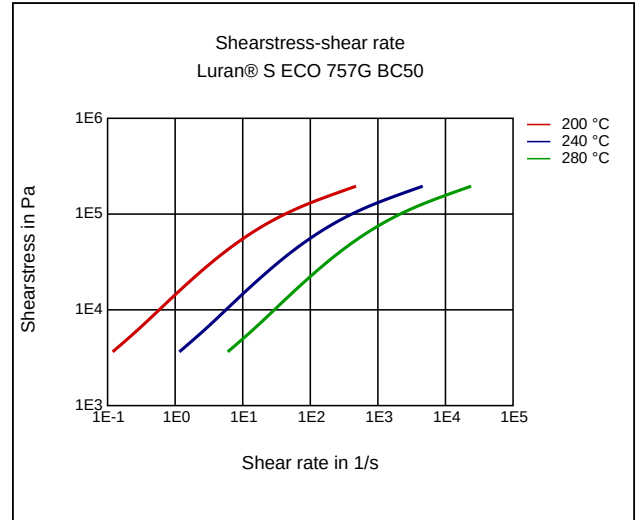
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Diagrams

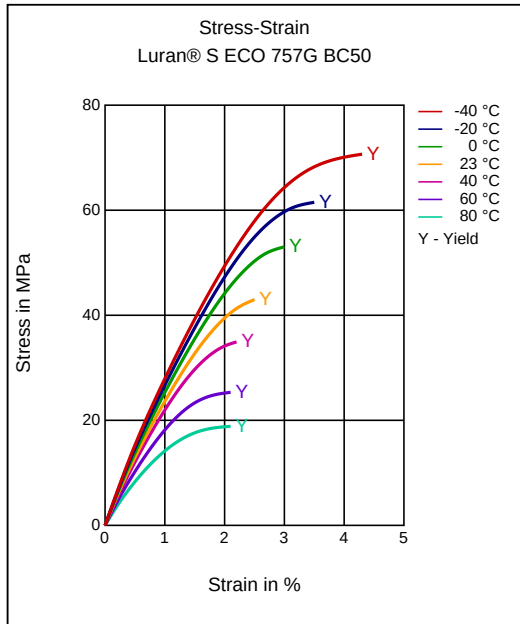
Viscosity-shear rate



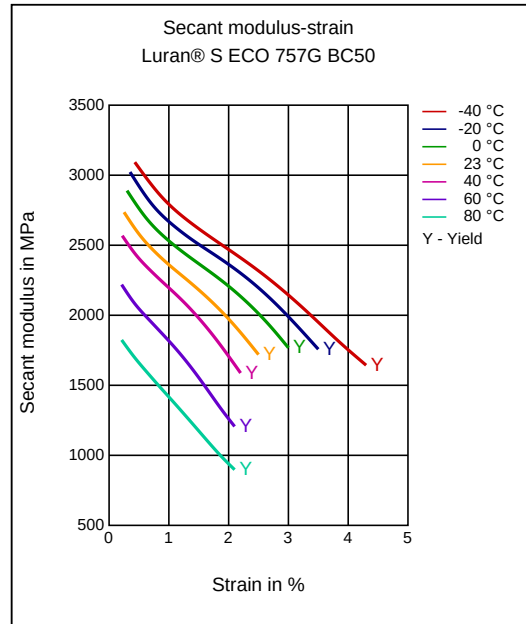
Shearstress-shear rate



Stress-strain



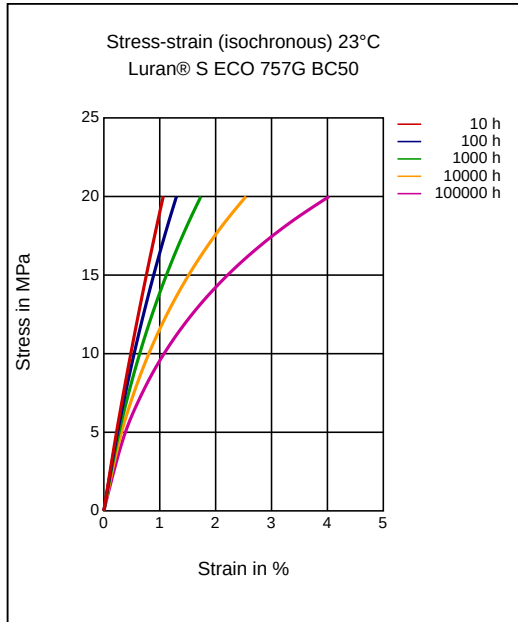
Secant modulus-strain



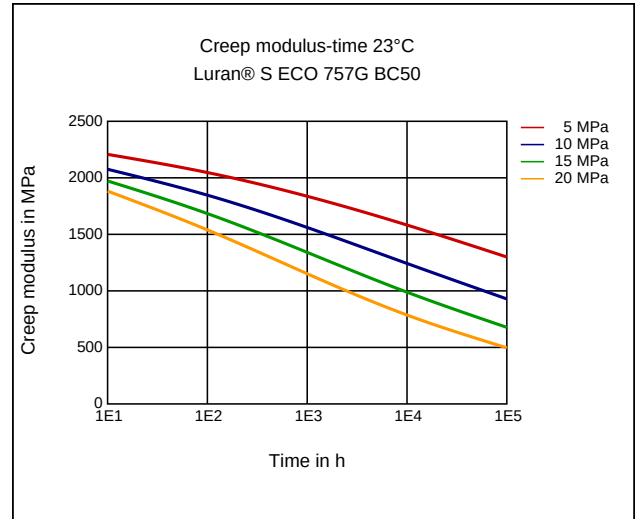
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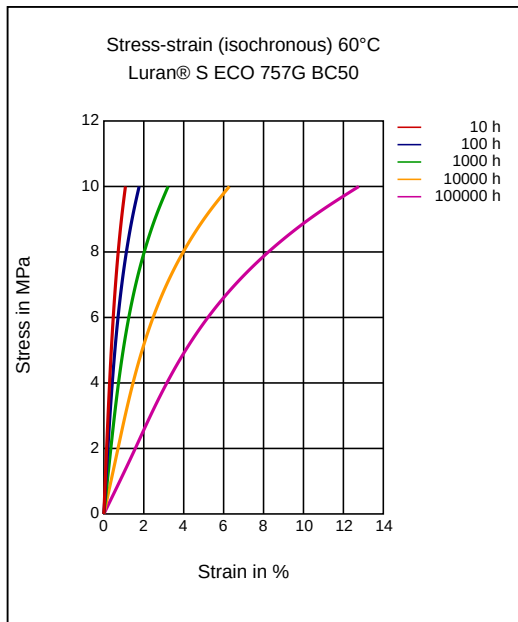
Stress-strain (isochronous) 23°C



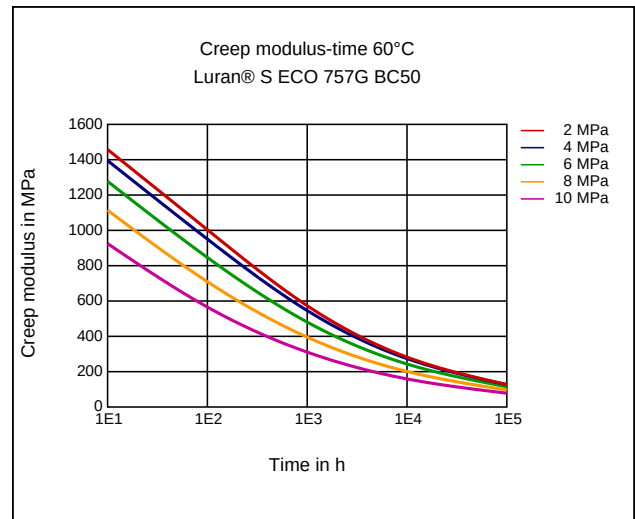
Creep modulus-time 23°C



Stress-strain (isochronous) 60°C



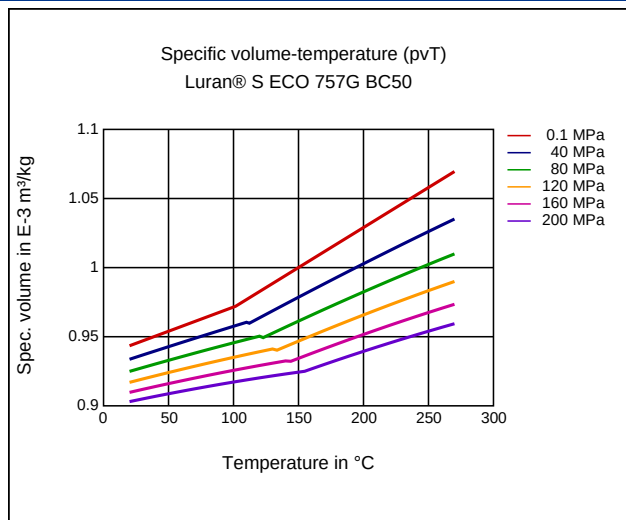
Creep modulus-time 60°C



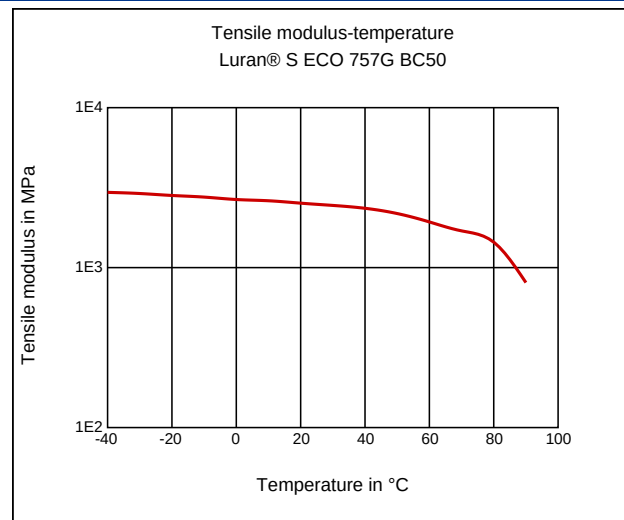
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Specific volume-temperature (pvT)



Tensile Modulus-Temperature



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Additives

Release agent

Special Characteristics

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

Chemical Resistance

General Chemical Resistance

Certifications

Contains renewable resources, ISCC Plus

Applications

Electrical and Electronical, Sports Equipment

Injection Molding

PREPROCESSING

Pre-drying, Temperature: 80°C

Pre-drying, Time: 2 - 4h

PROCESSING

Melt temperature, range: 240 - 280°C

Mold temperature, range: 40 - 80°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)

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- ✓ 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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