+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

INEOS Styrolution

ALBIS

Luran® ECO 378P BC60

SAN INEOS Styrolution

Luran® ECO 378P is an easy flow grade of SAN with enhanced chemical resistance and mechanical strength. Luran® ECO 378P BC60 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	20	cm³/10min	ISO 1133
Temperature	220	°C	-
Load	10	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	3800	MPa	ISO 527
Stress at Break	75	MPa	ISO 527
Strain at Break	3.5	%	ISO 527
Impact Strength (Charpy), +23°C	19	kJ/m²	ISO 179/1eU
Impact Strength (Charpy), -30°C	19	kJ/m²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	2	kJ/m²	ISO 179/1eA
Flexural Modulus (23°C)	3730	MPa	ISO 178
Flexural strength	135	MPa	ISO 178
Notched Impact Strength (Izod), 23°C	2	kJ/m²	ISO 180/1A
Ball Indentation Hardness	175	MPa	ISO 2039-1

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	89	°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	107	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	70	E-6/K	ISO 11359-1/-2
ASTM Data			
Thermal Conductivity, solid state	0.17	W/(m K)	DIN 52612-1

Other Properties	Value	Unit	Test Standard
ISO Data			
Humidity absorption	0.3	%	Sim. to ISO 62
Density	1080	kg/m³	ISO 1183
Bulk density	600	kg/m³	-

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Thermal Conductivity of Melt	0.17	W/(m K)	-

Optical Properties	Value	Unit	Test Standard
ASTM Data			
Haze	1	%	ASTM D 1003
Light Transmittance	89	%	ASTM D 1003
Index of Refraction	1.56	-	ISO 489

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	220 - 260	°C	-
Mold temperature	40 - 80	°C	-
Injection speed	200	mm/s	-

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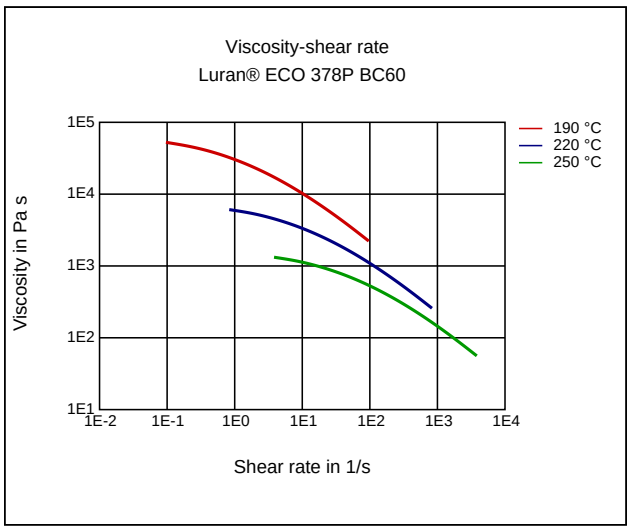
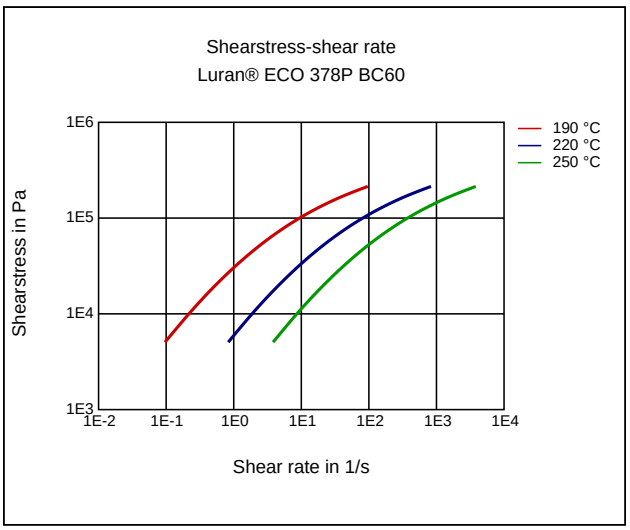
Diagrams

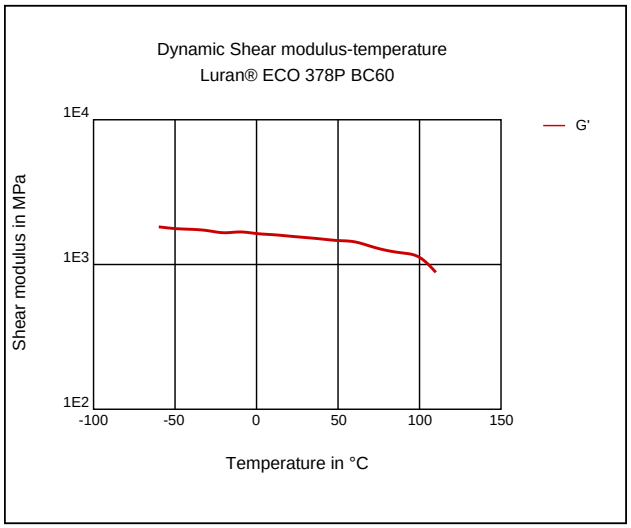
Viscosity-shear rate



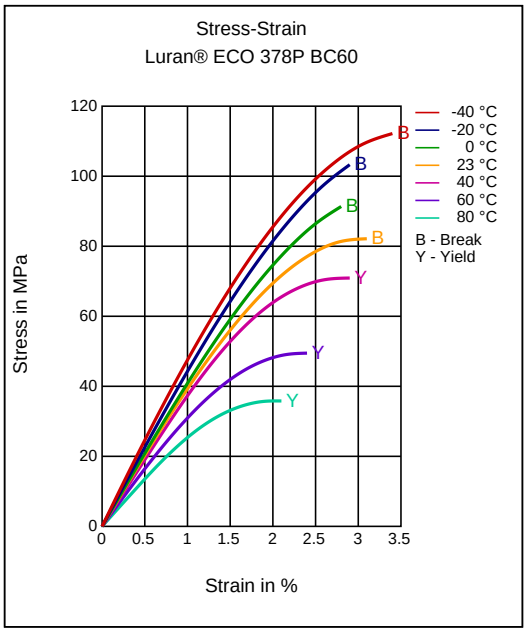
Shearstress-shear rate



Dynamic Shear modulus-temperature



Stress-strain



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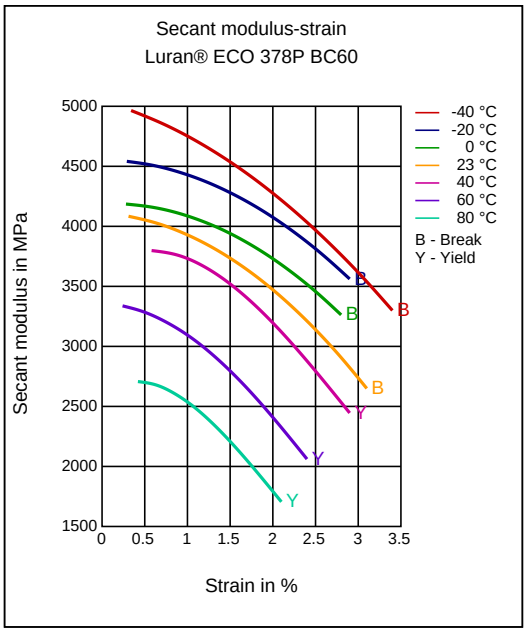
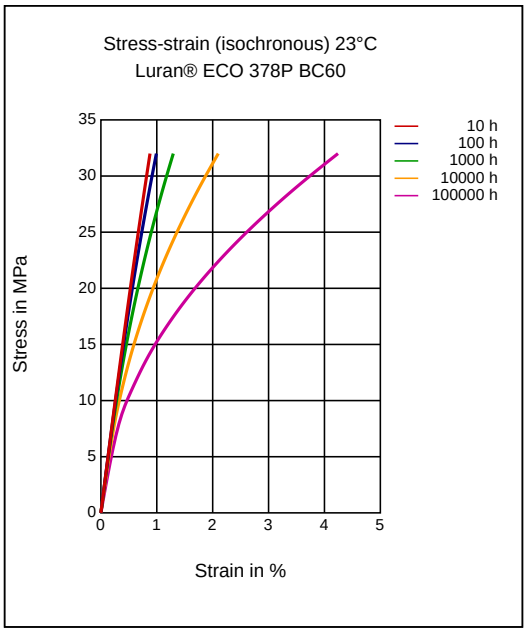
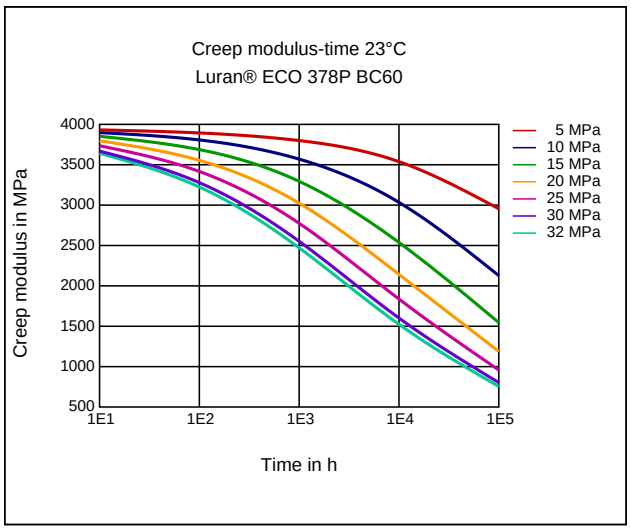
Secant modulus-strain



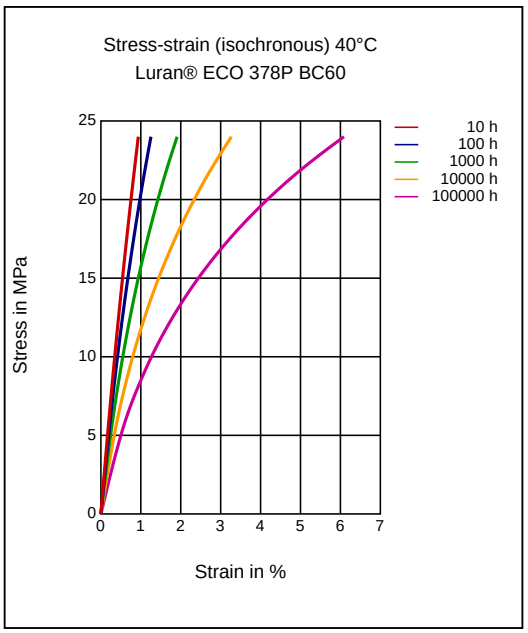
Stress-strain (isochronous) 23 °C



Creep modulus-time 23 °C



Stress-strain (isochronous) 40 °C



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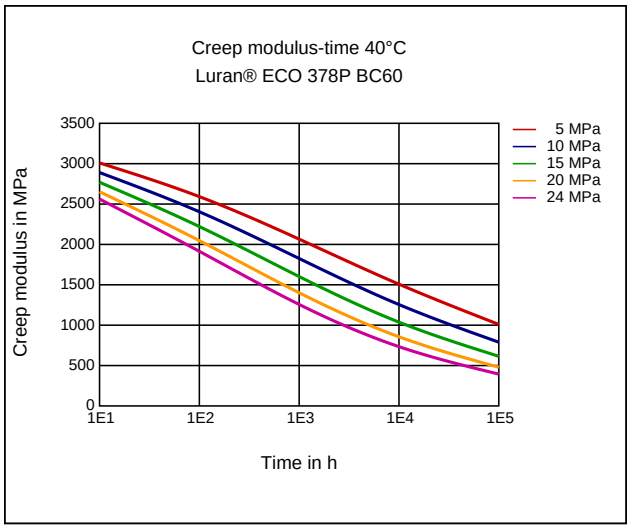
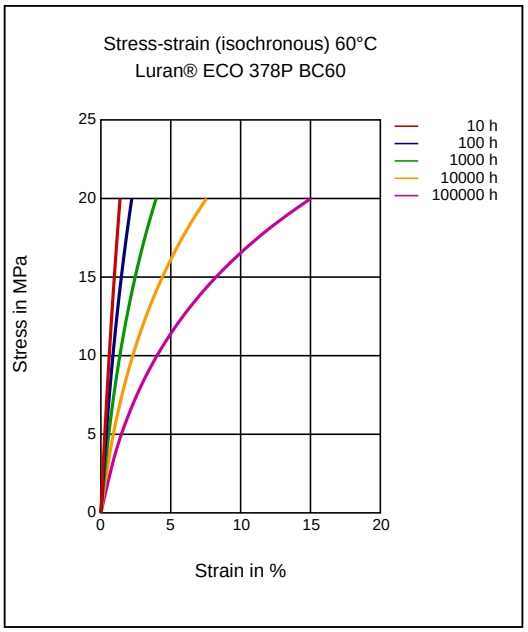
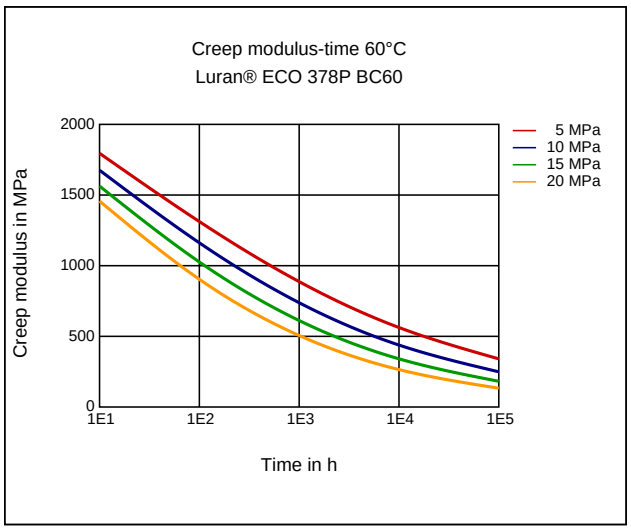
Creep modulus-time 40 °C



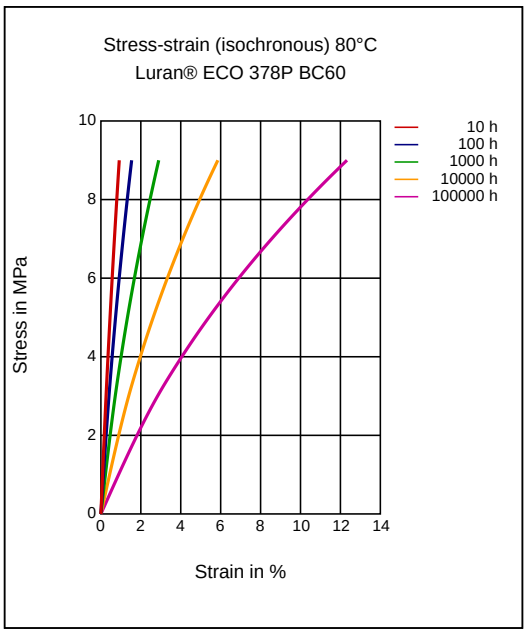
Stress-strain (isochronous) 60 °C



Creep modulus-time 60 °C



Stress-strain (isochronous) 80 °C



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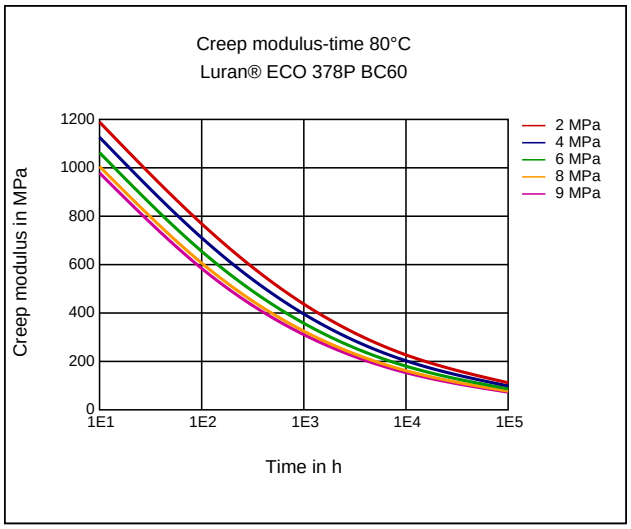
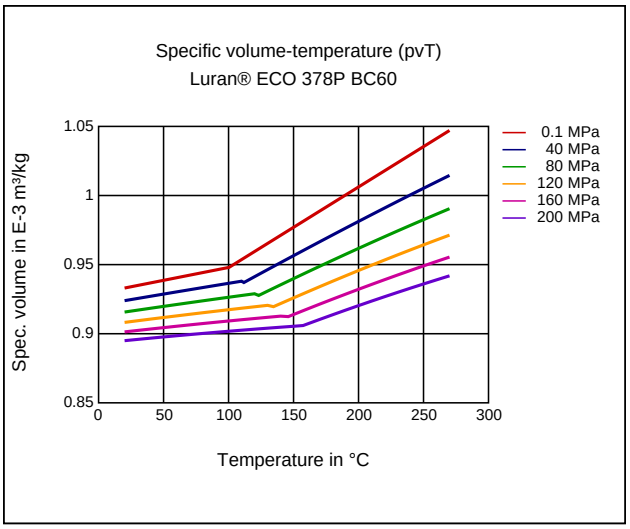
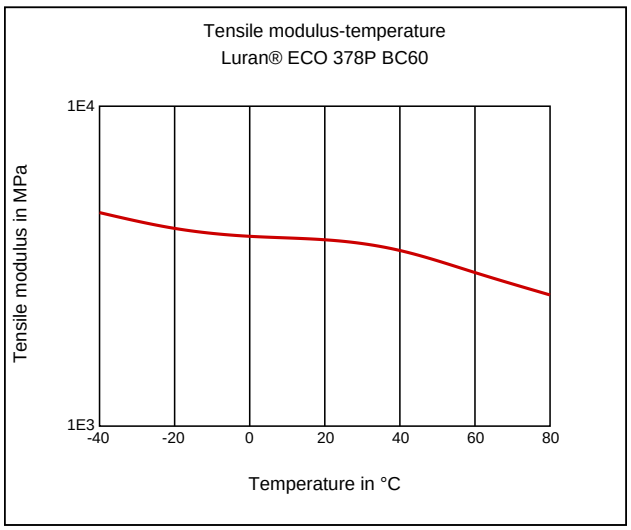
Creep modulus-time 80 °C



Specific volume-temperature (pvT)



Tensile Modulus-Temperature



Characteristics

Processing
Injection Molding

Chemical Resistance
General Chemical Resistance

Delivery form
Pellets

Certifications
Contains renewable resources, Food approval, ISCC Plus

Special Characteristics
Heat aging stabilized, Transparent

Applications
Electrical and Electronical

Injection Molding

PREPROCESSING

Pre-drying, Temperature: 80 °C

Pre-drying, Time: 2 - 4h

PROCESSING

Melt temperature, range: 220 - 260 °C

Mold temperature, range: 40 - 80 °C

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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)
- ✔ 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

- ✔ Methanol (23°C)
- ✔ Ethanol (23°C)

Hydrocarbons

- ✔ iso-Octane (23°C)

Standard Fuels

- ✔ 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

- ✔ Hydrogen peroxide (23°C)
- ✔ 1% nonylphenoxy-polyethyleneoxy ethanol in water (23°C)
- ✔ Water (23°C)