

Terluran® GP-22

ABS

Styrolution Group GmbH

Product Texts

Easy-flow, general purpose injection moulding grade with high resistance to impact and heat distortion; intended for a wide range of applications, particularly in the housings sector.

Rheological properties	Value	Unit	Test Standard
CAMPUS/ISO Data			
Melt volume-flow rate (MVR)	19	cm ³ /10min	ISO 1133
Temperature	220	°C	ISO 1133
Load	10	kg	ISO 1133

Mechanical properties	Value	Unit	Test Standard
CAMPUS/ISO Data			
Tensile Modulus	2300	MPa	ISO 527-1/-2
Yield stress	45	MPa	ISO 527-1/-2
Yield strain	2.6	%	ISO 527-1/-2
Nominal strain at break	10	%	ISO 527-1/-2
Charpy impact strength (+23 °C)	180	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30 °C)	100	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23 °C)	22	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30 °C)	8	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
CAMPUS/ISO Data			
Temp. of deflection under load (1.80 MPa)	80	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	92	°C	ISO 75-1/-2
Vicat softening temperature (50 °C/h 50N)	96	°C	ISO 306
Coeff. of linear therm. expansion (parallel)	95	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
UL recognition	UL	-	-
Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.8	mm	IEC 60695-11-10

Electrical properties	Value	Unit	Test Standard
CAMPUS/ISO Data			
Relative permittivity (100Hz)	2.9	-	IEC 60250
Relative permittivity (1MHz)	2.8	-	IEC 60250
Dissipation factor (100Hz)	48	E-4	IEC 60250
Dissipation factor (1MHz)	79	E-4	IEC 60250
Volume resistivity	1E13	Ohm*m	IEC 60093
Surface resistivity	1E13	Ohm	IEC 60093
Electric strength	41	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

Other properties	Value	Unit	Test Standard
CAMPUS/ISO Data			
Water absorption	1	%	Sim. to ISO 62
Humidity absorption	0.22	%	Sim. to ISO 62
Density	1040	kg/m ³	ISO 1183

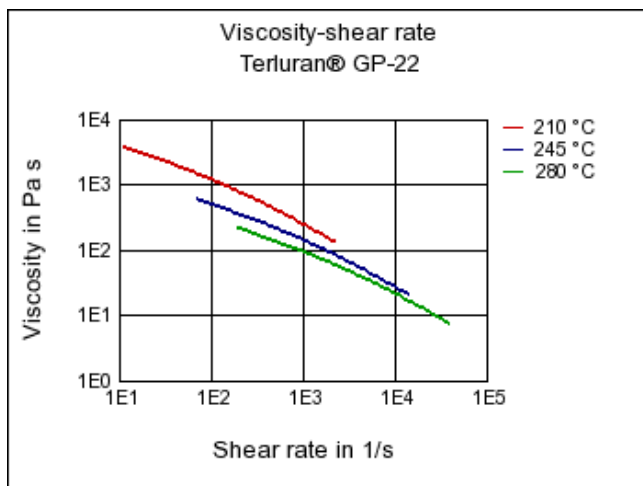
Rheological calculation properties	Value	Unit	Test Standard
CAMPUS/ISO Data			
Density of melt	930	kg/m ³	-
Thermal conductivity of melt	0.16	W/(m K)	-

Spec. heat capacity melt	2400	J/(kg K)	-
Ejection temperature	93	°C	-

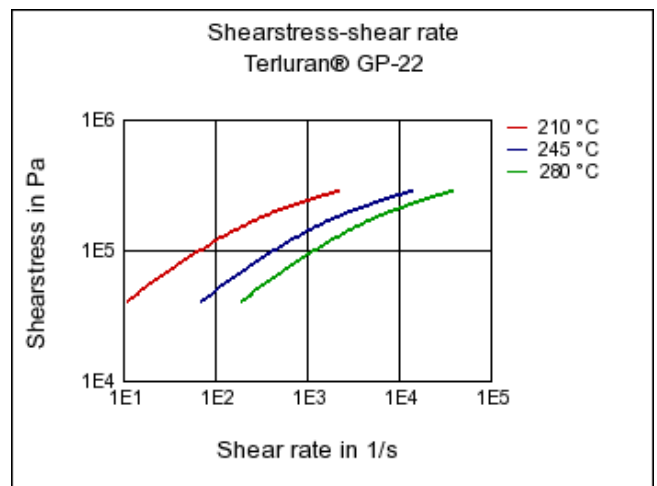
Test specimen production	Value	Unit	Test Standard
CAMPUS/ISO Data			
Injection Molding, melt temperature	250	°C	ISO 294
Injection Molding, mold temperature	60	°C	ISO 10724
Injection Molding, injection velocity	200	mm/s	ISO 294

Diagrams

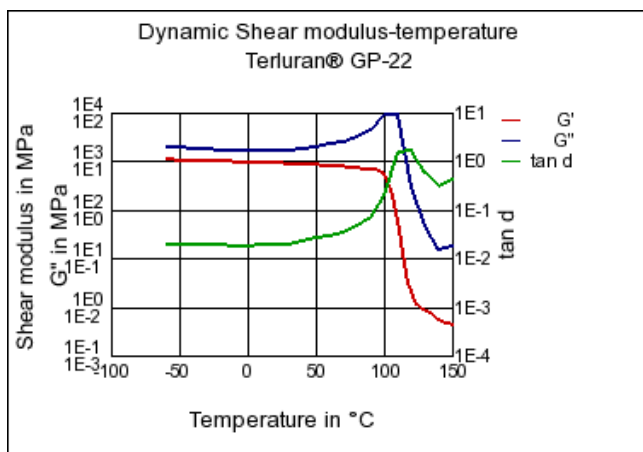
Viscosity-shear rate



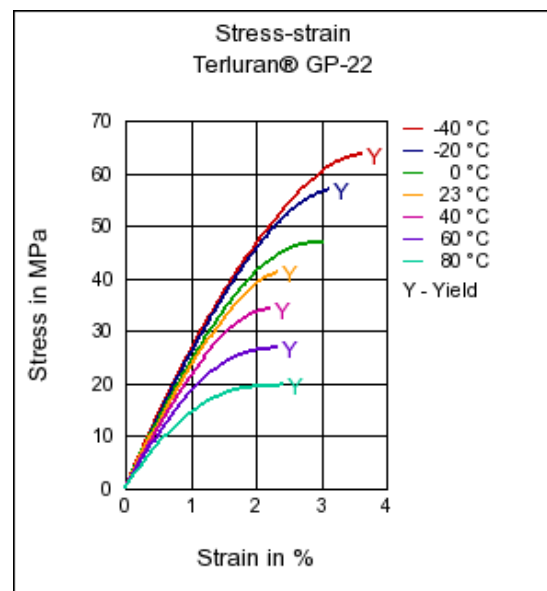
Shearstress-shear rate



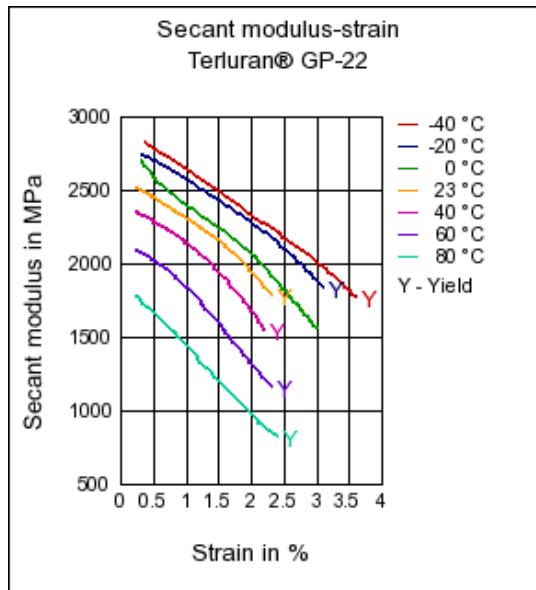
Dynamic Shear modulus-temperature



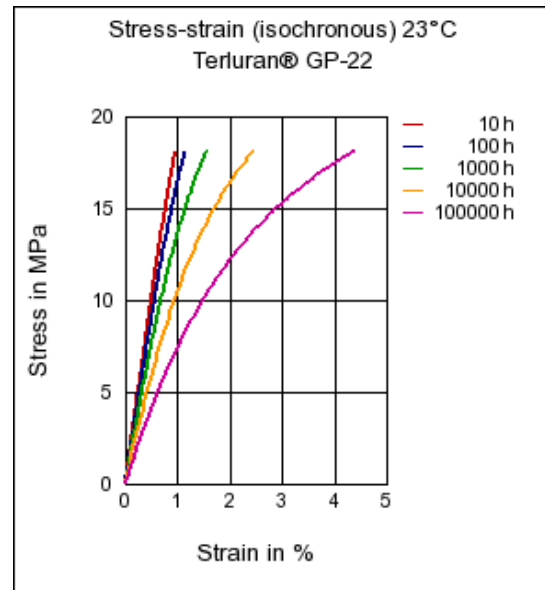
Stress-strain



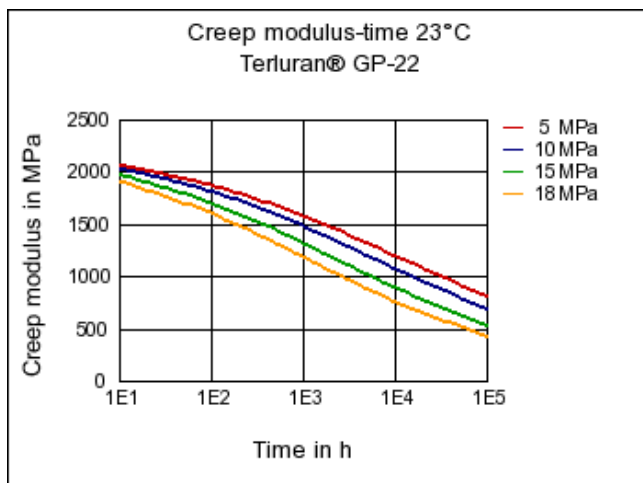
Secant modulus-strain



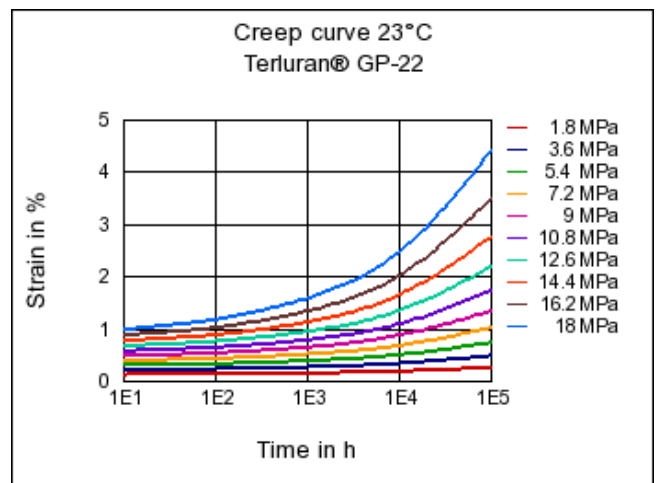
Stress-strain (isochronous) 23 °C



Creep modulus-time 23 °C



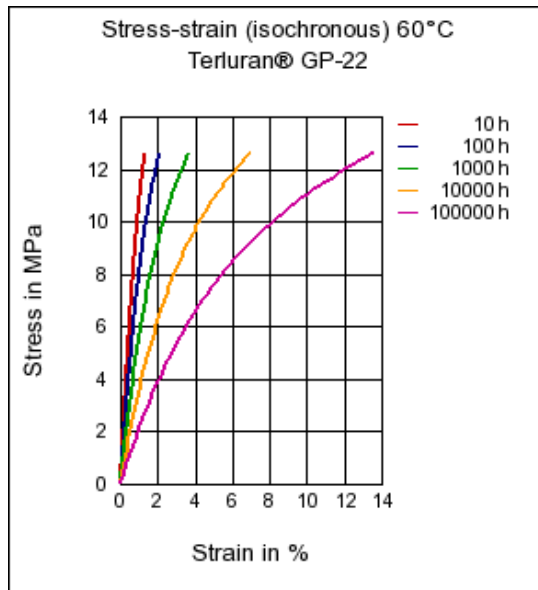
Creep curve 23 °C



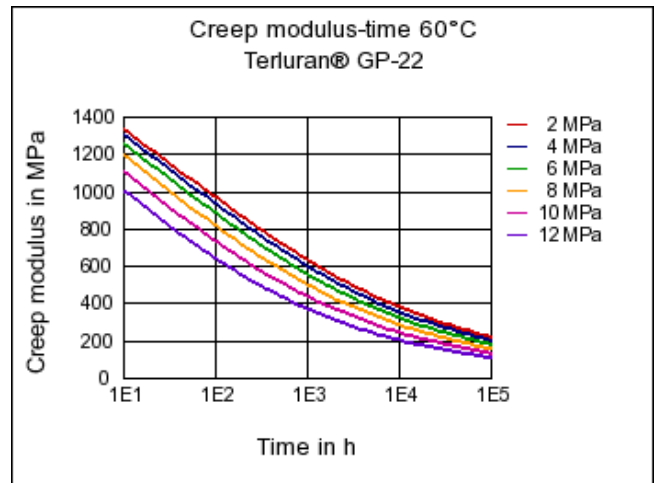
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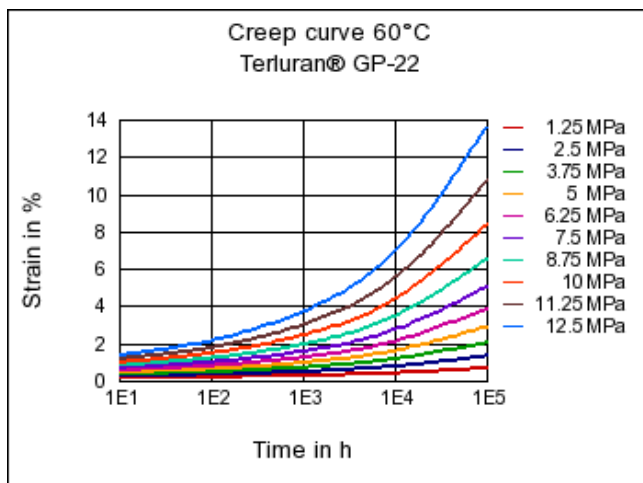
Stress-strain (isochronous) 60 °C



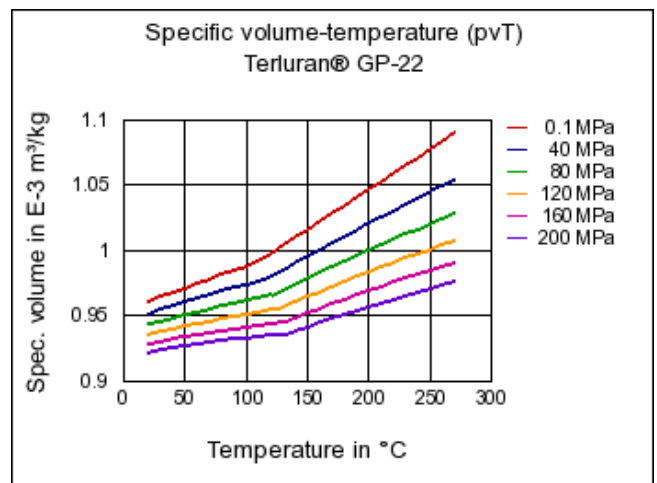
Creep modulus-time 60 °C



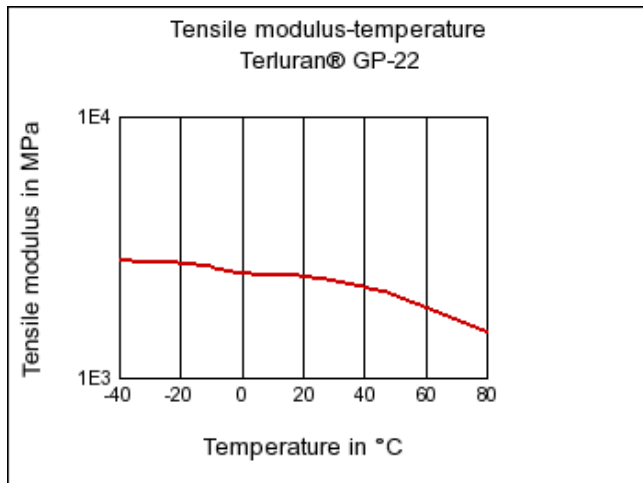
Creep curve 60 °C



Specific volume-temperature (pVT)



Tensile modulus-temperature



Characteristics

Processing

Injection Molding

Special Characteristics

Anti-static, Platable

Delivery form

Pellets

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information

Injection molding

PREPROCESSING

Pre/Post-processing, Pre-drying, Temperature: 80 °C

Pre/Post-processing, Pre-drying, Time: 2 - 4 h

PROCESSING

injection molding, Melt temperature, range: 220 - 260 °C

injection molding, Melt temperature, recommended: 250 °C

injection molding, Mold temperature, range: 30 - 60 °C

injection molding, Mold temperature, recommended: 50 °C

Chemical Media Resistance

Acids

⊖ Nitric Acid (40% by mass) (23 °C)

Alcohols

⊖ Isopropyl alcohol (23 °C)

Hydrocarbons


⊖ n-Hexane (23 °C)

⊖ Toluene (23 °C)


Ketones

 Acetone (23°C)

Ethers

 Diethyl ether (23°C)

Other

 Ethyl Acetate (23°C)

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