



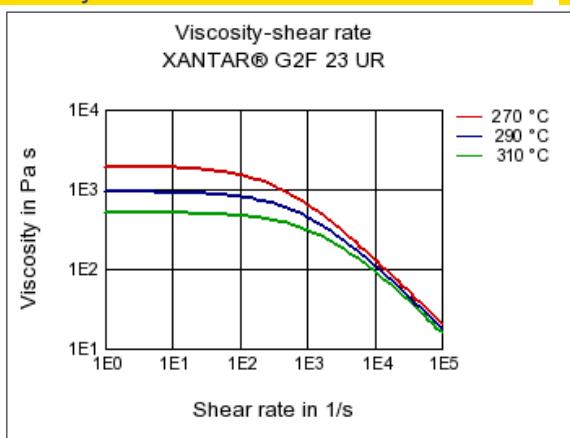
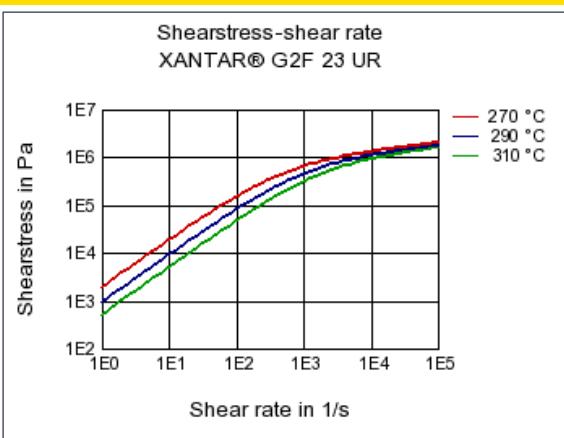
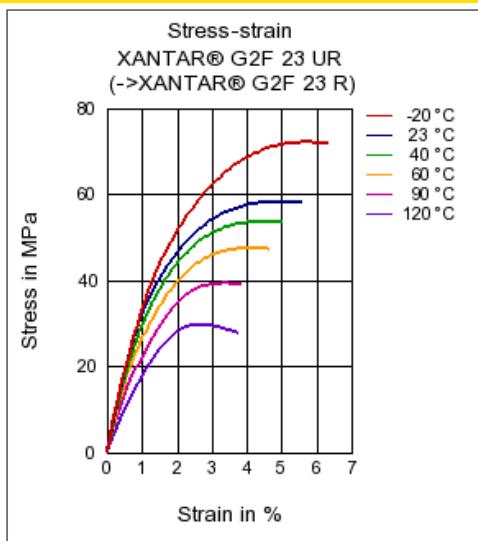
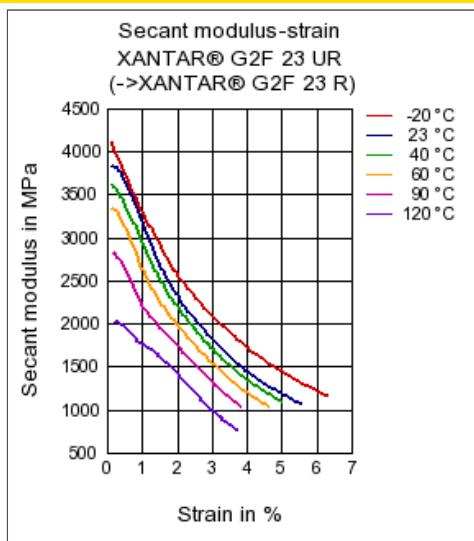
XANTAR® G2F 23 UR						
PC-GF10 FR	Mitsubishi Engineering-Plastics Corporation					
Product Texts						
10% Glass Reinforced, Flame Retardant, UV Stabilized						
ISO 1043 PC-GF10 FR						
<u>XANTAR® Polycarbonate & Blends, your global partner for innovative added value</u>						
Rheological properties	Value	Unit	Test Standard			
ISO Data						
Melt volume-flow rate, MVR	6	cm ³ /10min	ISO 1133			
Temperature	300	°C	ISO 1133			
Load	1.2	kg	ISO 1133			
Molding shrinkage, parallel	0.2	%	ISO 294-4, 2577			
Molding shrinkage, normal	0.6	%	ISO 294-4, 2577			
Mechanical properties	Value	Unit	Test Standard			
ISO Data						
Tensile Modulus	3500	MPa	ISO 527-1/-2			
Yield stress	65	MPa	ISO 527-1/-2			
Yield strain	5	%	ISO 527-1/-2			
Nominal strain at break	15	%	ISO 527-1/-2			
Thermal properties	Value	Unit	Test Standard			
ISO Data						
Temp. of deflection under load (1.80 MPa)	145	°C	ISO 75-1/-2			
Vicat softening temperature, 50°C/h 50N	150	°C	ISO 306			
Coeff. of linear therm. expansion, parallel	45	E-6/K	ISO 11359-1/-2			
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10			
Thickness tested	1.5	mm	IEC 60695-11-10			
UL recognition	UL	-	-			
Burning behav. at thickness h	V-0	class	IEC 60695-11-10			
Thickness tested	3.0	mm	IEC 60695-11-10			
UL recognition	UL	-	-			
Burning behav. 5V at thickness h	5VA	class	IEC 60695-11-20			
Thickness tested	3.0	mm	IEC 60695-11-20			
UL recognition	UL	-	-			
Oxygen index	35	%	ISO 4589-1/-2			
Electrical properties	Value	Unit	Test Standard			
ISO Data						
Relative permittivity, 100Hz	3.1	-	IEC 60250			
Relative permittivity, 1MHz	3	-	IEC 60250			
Dissipation factor, 100Hz	9	E-4	IEC 60250			
Dissipation factor, 1MHz	90	E-4	IEC 60250			
Volume resistivity	>1E13	Ohm*m	IEC 60093			
Surface resistivity	>1E15	Ohm	IEC 60093			
Electric strength	29	kV/mm	IEC 60243-1			
Comparative tracking index	200	-	IEC 60112			
Other properties	Value	Unit	Test Standard			
ISO Data						
Water absorption	0.31	%	Sim. to ISO 62			
Density	1270	kg/m ³	ISO 1183			

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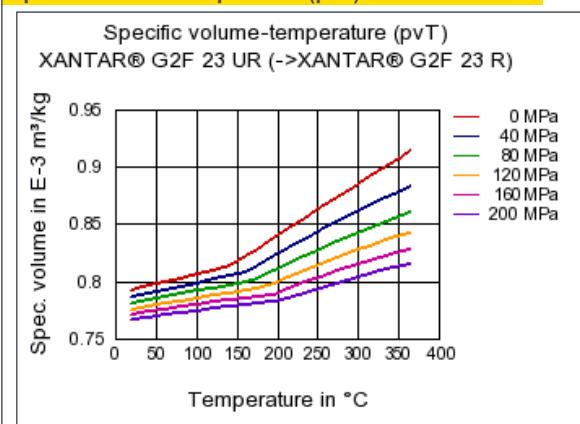
PC-GF10 FR

Mitsubishi Engineering-Plastics Corporation

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	1090	kg/m ³	-
Thermal conductivity of melt	0.26	W/(m K)	-
Spec. heat capacity of melt	1620	J/(kg K)	-
Eff. thermal diffusivity	1.48E-7	m ² /s	-
Ejection temperature	134	°C	-
Test specimen production			
ISO Data			
Injection Molding, melt temperature	300	°C	ISO 294
Injection Molding, mold temperature	100	°C	ISO 10724

Diagrams**Viscosity-shear rate****Shearstress-shear rate****Stress-strain****Secant modulus-strain**

Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Special Characteristics

Flame retardant, Light stabilized or stable to light, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

Other text information

Injection Molding

[Injection Molding Recommendations](#)

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)
- 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)
- Toluene (23°C)
- iso-Octane (23°C)

Ketones

- Acetone (23°C)

Ethers

-  Diethyl ether (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

-  Ethyl Acetate (23°C)
-  Hydrogen peroxide (23°C)
-  Water (23°C)
-  Phenol solution (5% by mass) (23°C)