Mitsubishi Engineering-Plastics Corporation

TER Plastics POLYMER GROUP

TECHNICAL DATA SHEET

XANTAR™ G4F 23 UR

Mitsubishi EP

PC-GF20 FR

Processing

Injection molding

Delivery Form

Pellets

Additives

Release agent

Special Characteristics

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

Product Text

Product Information

20% Glass Reinforced, Flame Retardant, UV Stabilized

ISO 1043 PC-GF20 FR

XANTAR Polycarbonate & Blends, your global partner for innovative added value

Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	6	cm³/10min	ISO 1133
Temperature	300	°C	
Load	1.2	kg	
Molding shrinkage, parallel	0.2	%	ISO 294-4, 2577
Molding shrinkage, normal	0.5	%	ISO 294-4, 2577
Density of melt	1170	kg/m³	
Thermal conductivity of melt	0.29	W/(m K)	
Spec. heat capacity of melt	1530	J/(kg K)	
Eff. thermal diffusivity	1.62E-7	m²/s	
Ejection temperature	134	°C	

Mechanical Properties	Value	Unit	Standard
Tensile modulus	6000	MPa	ISO 527
Stress at break	95	MPa	ISO 527
Strain at break	4	%	ISO 527
Poisson's ratio	0.35		ISO 527

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Thermal Properties	Value	Unit	Standard
Temp. of deflection under load, 1.80 MPa	145	°C	ISO 75-1/-2
Vicat softening temperature, B	150	°C	ISO 306
Coeff. of linear therm. expansion, parallel	30	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	
Yellow card available	yes		
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	1.2	mm	
Yellow card available	yes		
Oxygen index	35	%	ISO 4589-1/-2

Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	3.25		IEC 62631-2-1
Relative permittivity, 1MHz	3.2		IEC 62631-2-1
Dissipation factor, 100Hz	9	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	90	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	29	kV/mm	IEC 60243-1
Comparative tracking index	200		IEC 60112

Other Properties	Value	Unit	Standard
Water absorption	0.29	%	Sim. to ISO 62
Density	1350	kg/m³	ISO 1183

Test Specimen Production	Value	Unit	Standard
Injection molding, melt temperature	300	°C	ISO 294
Injection molding, mold temperature	100	°C	ISO 294

Processing Recommendation Injection Molding	Value	Unit	Standard
Pre-drying - temperature	120	°C	
Pre-drying - time	4	h	
Processing humidity	≤0.03	%	
Melt temperature	290 - 320	°C	
Mold temperature	80 - 120	°C	

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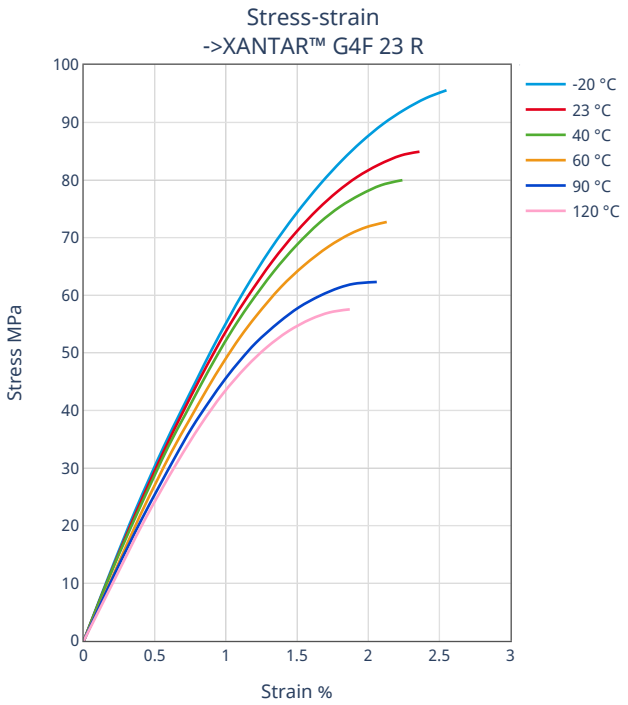
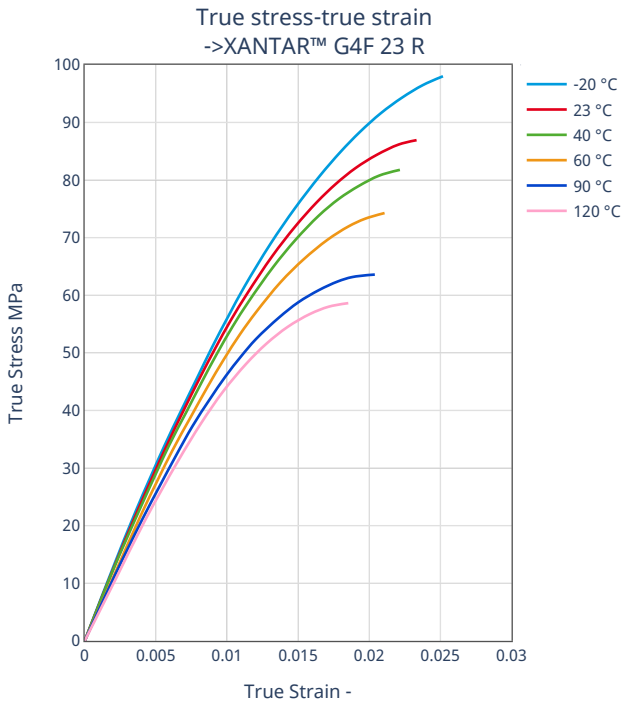
Processing Recommendation Injection Molding	Value	Unit	Standard
Zone 1	260 - 280	°C	
Zone 2	270 - 290	°C	
Zone 3	280 - 300	°C	
Nozzle temperature	270 - 290	°C	

Diagrams





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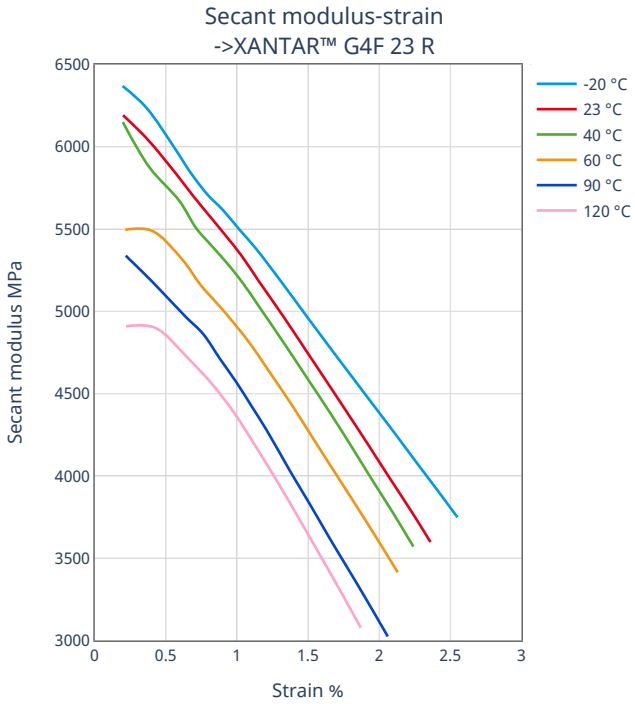

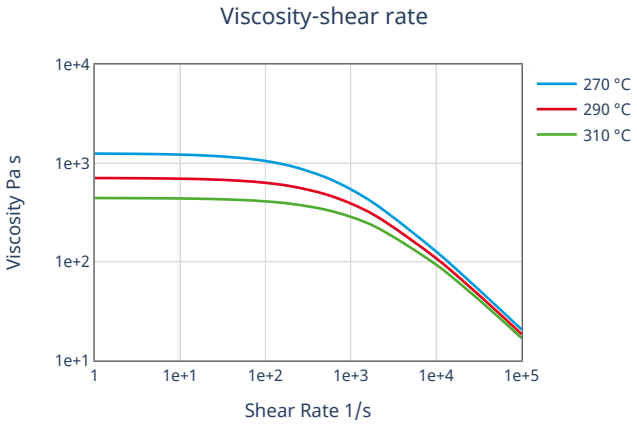

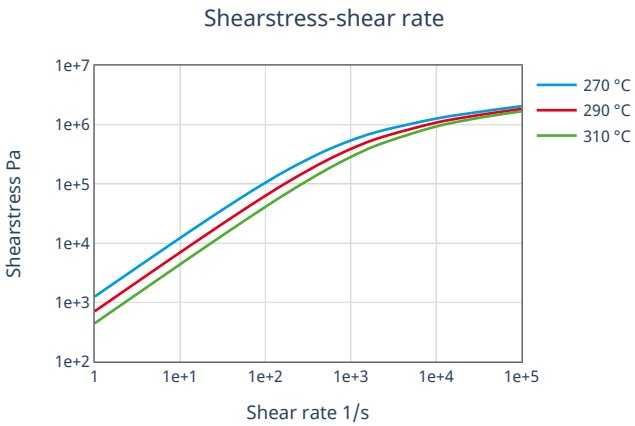

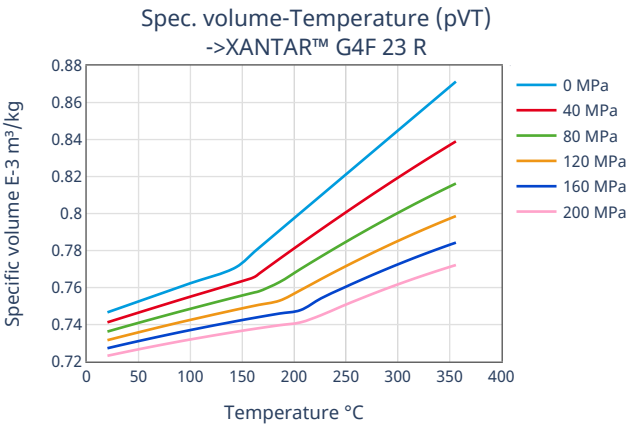

Processing Information

Injection molding

Injection Molding Recommendations