

TECHNICAL DATA SHEET

XANTAR™ FC 23 R

Mitsubishi EP

PC FR

Processing

Injection molding, Blow molding

Delivery Form

Pellets

Additives

Release agent

Special Characteristics

Flame retardant, Heat stabilized or stable to heat

Product Text

Product Information

Medium Viscosity, Flame Retardant, Molding Release

ISO 1043 PC FR

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

Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	7	cm ³ /10min	ISO 1133
Temperature	300	°C	
Load	1.2	kg	
Molding shrinkage, parallel	0.6	%	ISO 294-4, 2577
Density of melt	1010	kg/m ³	
Thermal conductivity of melt	0.24	W/(m K)	
Spec. heat capacity of melt	1710	J/(kg K)	
Eff. thermal diffusivity	1.4E-7	m ² /s	
Ejection temperature	131	°C	
Mechanical Properties	Value	Unit	Standard
Tensile modulus	2300	MPa	ISO 527
Yield stress	60	MPa	ISO 527
Yield strain	6	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Poisson's ratio	0.35		ISO 527

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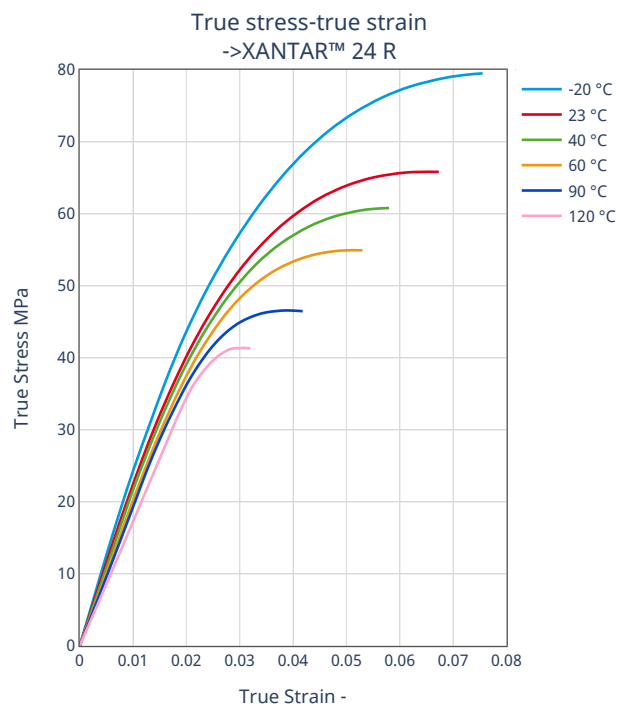
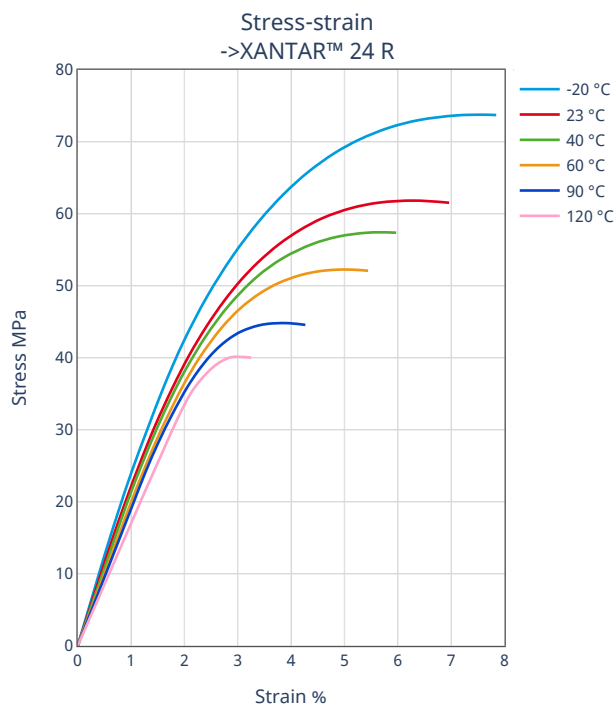
Thermal Properties	Value	Unit	Standard
Temp. of deflection under load, 1.80 MPa	130	°C	ISO 75-1/-2
Vicat softening temperature, B	148	°C	ISO 306
Coeff. of linear therm. expansion, parallel	65	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		
Burning behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	3	mm	
Yellow card available	yes		
Oxygen index	35	%	ISO 4589-1/-2
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	3		IEC 62631-2-1
Relative permittivity, 1MHz	2.9		IEC 62631-2-1
Dissipation factor, 100Hz	6.6	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	92	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	225		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	0.35	%	Sim. to ISO 62
Density	1200	kg/m ³	ISO 1183
Material Specific Properties	Value	Unit	Standard
Viscosity number	58	cm ³ /g	ISO 307, 1157, 1628
Test Specimen Production	Value	Unit	Standard
Injection molding, melt temperature	300	°C	ISO 294
Injection molding, mold temperature	90	°C	ISO 294

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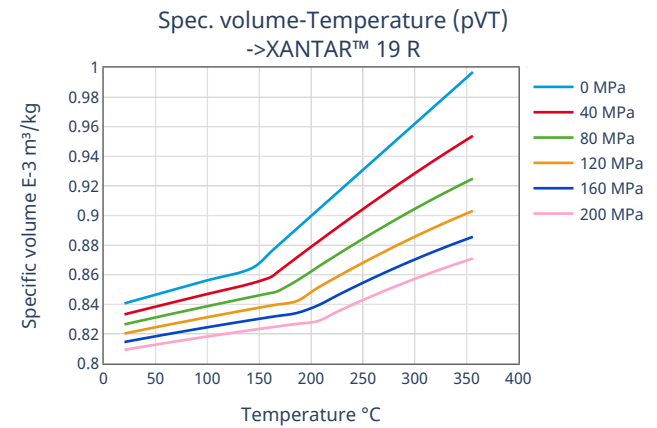
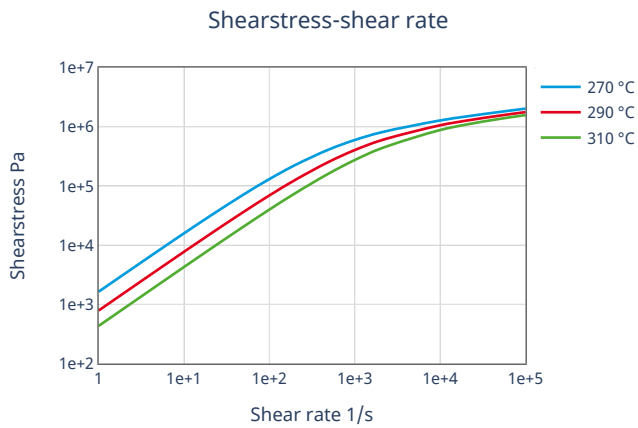
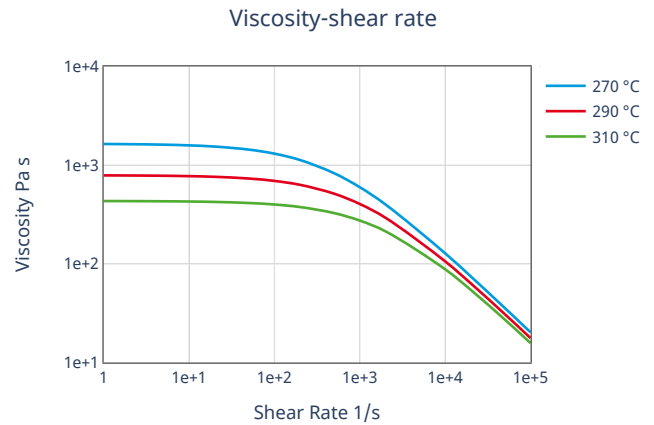
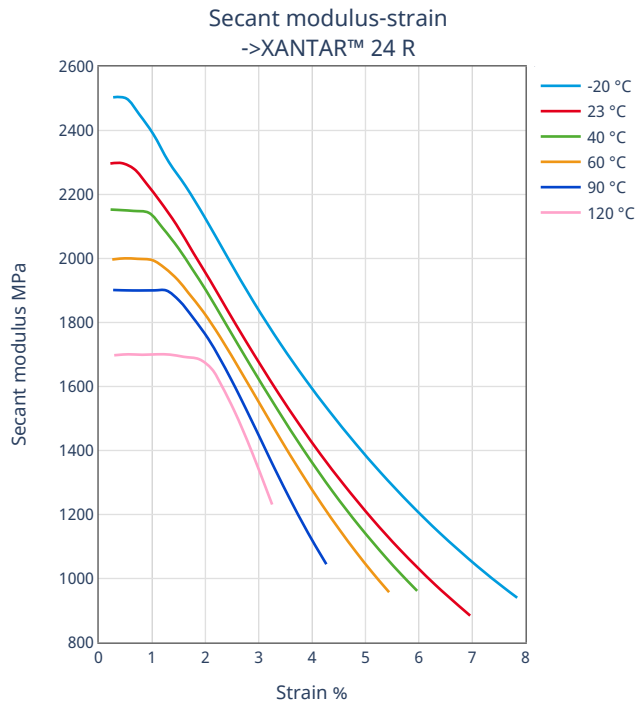
Processing Recommendation Injection Molding	Value	Unit	Standard
Pre-drying - temperature	120	°C	
Pre-drying - time	4	h	
Processing humidity	≤0.03	%	
Melt temperature	290 - 320	°C	
Mold temperature	80 - 120	°C	
Zone 1	260 - 280	°C	
Zone 2	270 - 290	°C	
Zone 3	280 - 300	°C	
Nozzle temperature	270 - 290	°C	

Diagrams



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Processing Information

Injection molding

Injection Molding Recommendations