THERMX® CG923 | PCT | Glass Reinforced

Description

Thermx® CG923 is a 20% glass fiber reinforced and flame retardant polycyclohexylenedimethylene terephthalate for injection molding.

Physical properties	Value	Unit	Test Standard
Density	**1570**	kg/m³	ISO 1183
Mold shrinkage - parallel	**0.4**	%	ISO 294-4
Mold shrinkage - normal	**0.9**	%	ISO 294-4

Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	**8000**	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	**100**	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	**1.8**	%	ISO 527-2/1A
Flexural modulus (23°C)	**7200**	MPa	ISO 178
Flexural strength (23°C)	**145**	MPa	ISO 178
Charpy impact strength @ 23°C	**30.0**	kJ/m²	ISO 179/1eU
Charpy notched impact strength @ 23°C	**5.0**	kJ/m²	ISO 179/1eA
Notched impact strength (Izod) @ 23°C	**5.0**	kJ/m²	ISO 180/1A

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	**285**	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	**235**	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	**0.15**	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	**1.1**	E-4/°C	ISO 11359-2
Flammability @1.6mm nom. thickn.	**V-0**	class	UL94
thickness tested (1.6)	**1.5**	mm	UL94
UL recognition (1.6)	**UL**	-	UL94

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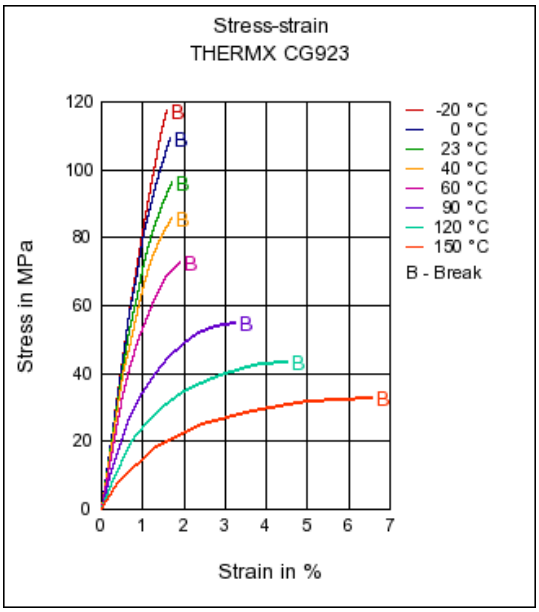
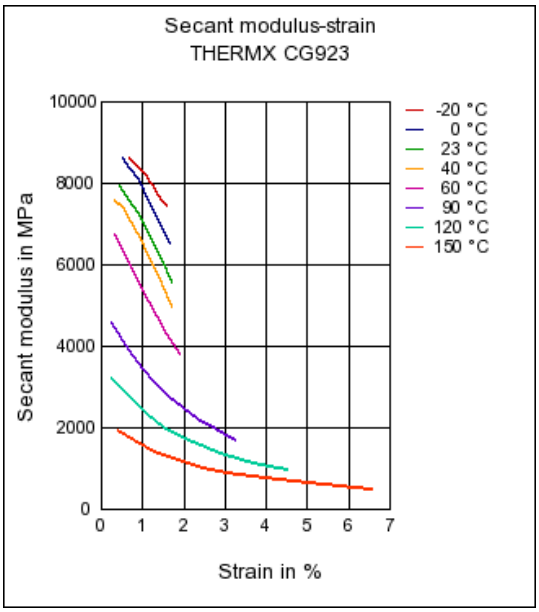
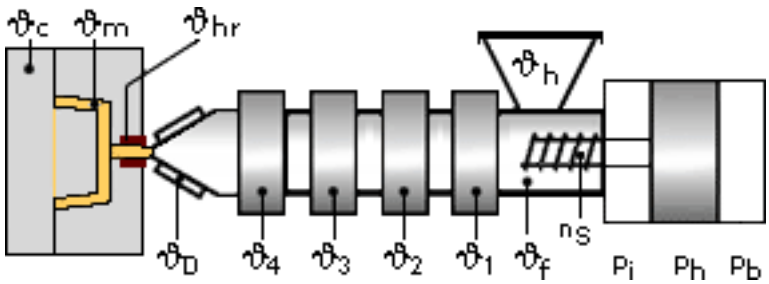
Stress-strain



Secant modulus-strain



Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.03%

Drying time: 4-6 h

Drying temperature: 95 - - °C

Temperature:

	Mold	Melt
min (°C)	80	295
max (°C)	120	310

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Injection Molding

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Melt Temperature Optimum = 300°C
Melt Temperature Range = 295-310°C
Mold Temperature Optimum = 100°C
Mold Temperature Range = 80-120°C
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General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.
Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.
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