Celanese
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Crastin® SK605LM BK591

THERMOPLASTIC POLYESTER RESIN

Crastin® SK605LM BK591 is a 30% Glass Reinforced, Laser Markable, Polybutylene Terephthalate

Product information

Resin Identification	PBT-GF30	ISO 1043
Part Marking Code	>PBT-GF30<	ISO 11469

Rheological properties

Melt volume-flow rate	5	cm^3/10min	ISO 1133
Temperature	250	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.1	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	9500	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	130	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5	%	ISO 527-1/-2
Flexural strength	200	MPa	ISO 178
Charpy impact strength, 23°C	70	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	10	kJ/m^2	ISO 179/1eA
Poisson's ratio	0.34		

Thermal properties

Melting temperature, 10°C/min	225	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	55	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	205	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	220[DS]	°C	ISO 75-1/-2

[DS]: Derived from similar grade

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	IEC 60695-11-10
Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.75	mm	IEC 60695-11-10
Oxygen index	20	%	ISO 4589-1/-2
Glow Wire Flammability Index, 0.75mm	725	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.5mm	725	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	825	°C	IEC 60695-2-12
Glow Wire Ignition Temperature, 0.75mm	750	°C	IEC 60695-2-13
Glow Wire Ignition Temperature, 1.5mm	750	°C	IEC 60695-2-13
Glow Wire Ignition Temperature, 3.0mm	800	°C	IEC 60695-2-13
FMVSS Class	B		ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	54	mm/min	ISO 3795 (FMVSS 302)

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Physical/Other properties

Density	1520	kg/m³	ISO 1183

VDA Properties

Odour	3	class	VDA 270
Fogging, F-value (refraction)	99	%	ISO 6452

Injection

Drying Recommended	yes	
Drying Temperature	120	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.04	%
Melt Temperature Optimum	250	°C
Min. melt temperature	240	°C
Max. melt temperature	260	°C
Mold Temperature Optimum	80	°C
Min. mould temperature	60	°C
Max. mould temperature	130	°C
Hold pressure range	≥60	MPa
Hold pressure time	3	s/mm
Back pressure	As low as possible	MPa
Ejection temperature	170	°C

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Release agent

Automotive

OEM	STANDARD
Bosch	N28 BN07-GF051

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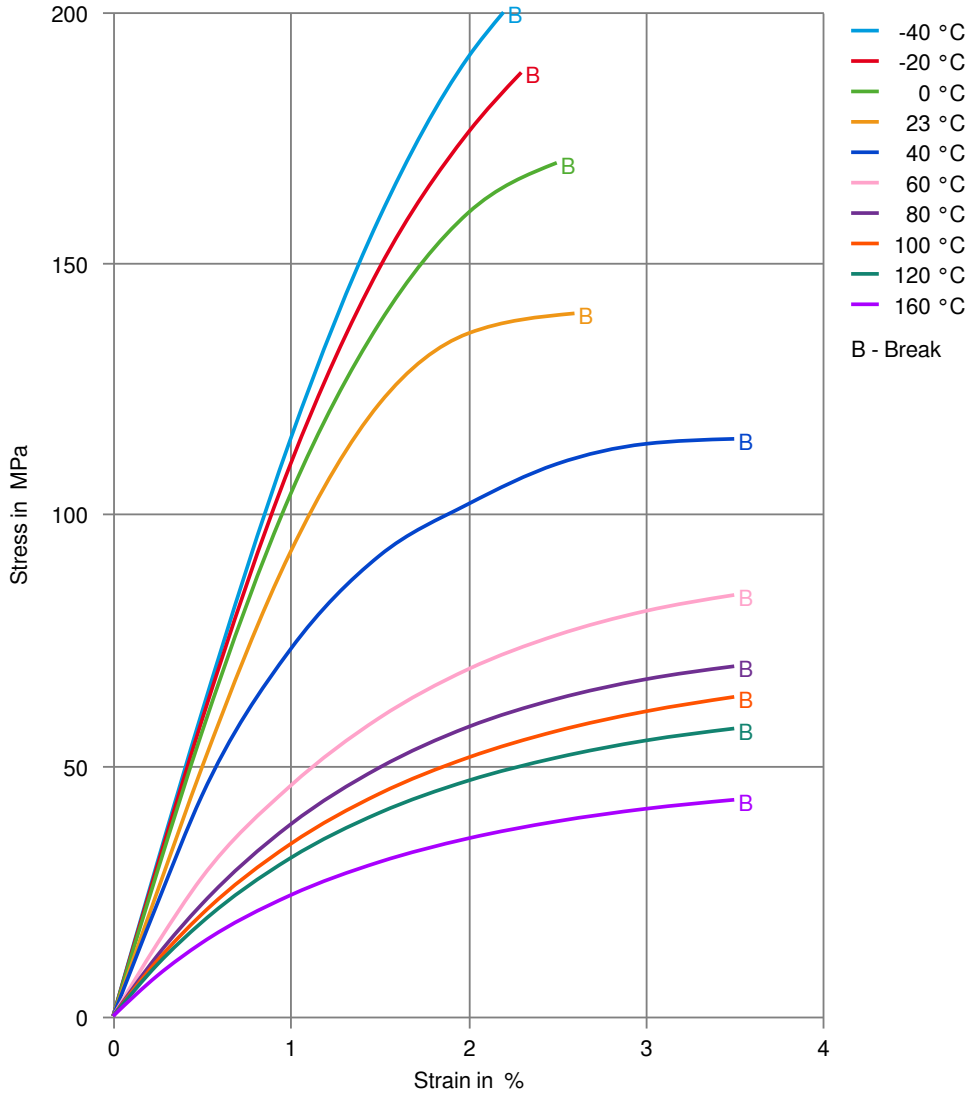
Stress-strain
(measured on Crastin® SK605 NC010)



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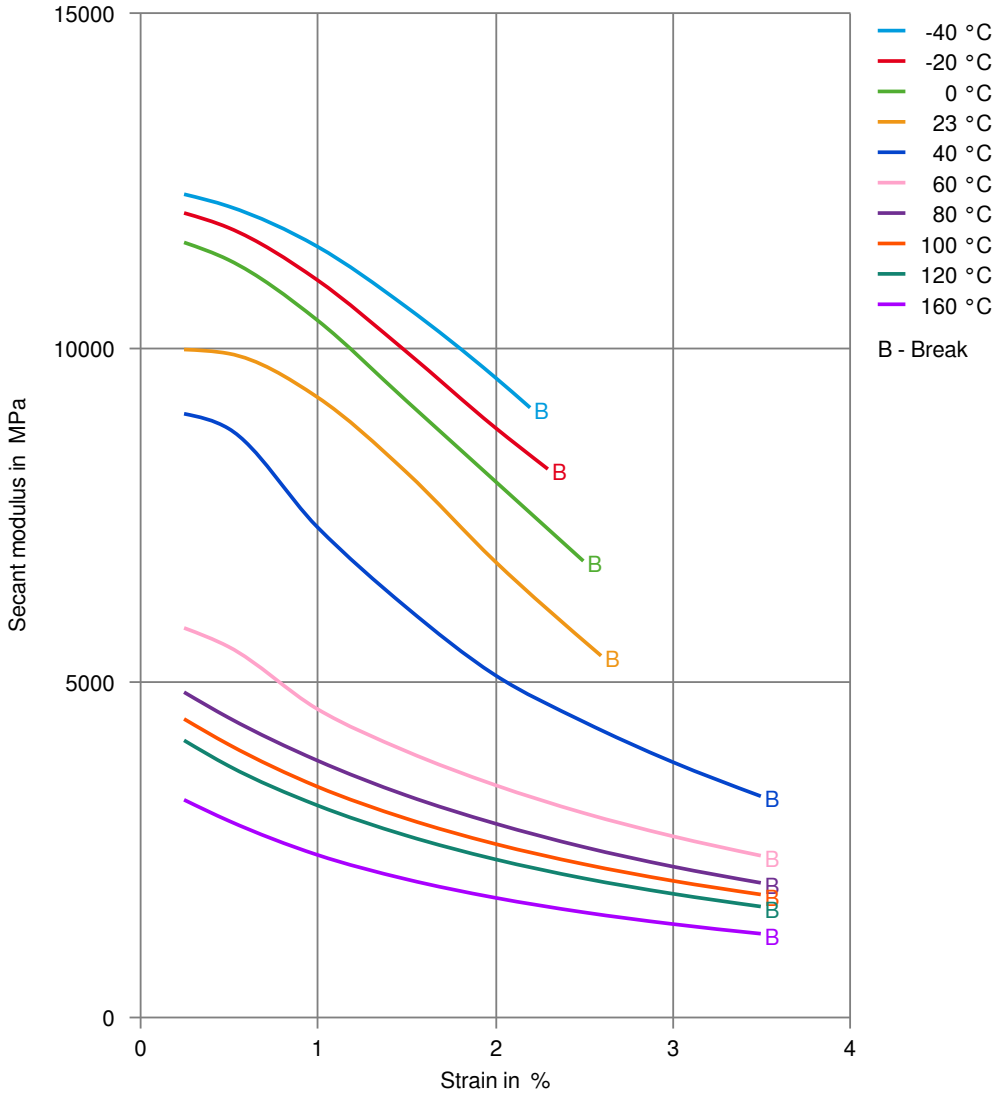
Secant modulus-strain
(measured on Crastin® SK605 NC010)



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Chemical Media Resistance

Other

- ✔ Water, 23 °C

Symbols used:

- ✔ possibly resistant
  Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).
- ✘ not recommended - see explanation
  Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).