

Crastin® 6003 NC010

THERMOPLASTIC POLYESTER RESIN

Crastin® 6003 NC010 is an Unreinforced Low Viscosity Polybutylene Terephthalate

Product information

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

Rheological properties

Melt mass-flow rate	87 g/10min	ISO 1133
Melt mass-flow rate, Temperature	250 °C	
Melt mass-flow rate, Load	2.16 kg	

Typical mechanical properties

Tensile modulus	2600 MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	56 MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	3.5 %	ISO 527-1/-2
Nominal strain at break	9 %	ISO 527-1/-2
Tensile strain at break, 50mm/min	15 %	ISO 527-1/-2
Flexural strength	80 MPa	ISO 178
Charpy notched impact strength, 23°C	3.2 kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	2.5 kJ/m ²	ISO 180/1A
Poisson's ratio	0.38	

Thermal properties

Melting temperature, 10°C/min	225 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	50 °C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	125 °C	ISO 75-1/-2

Flammability

FMVSS Class	B	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<80 mm/min	ISO 3795 (FMVSS 302)

Physical/Other properties

Density	1310 kg/m ³	ISO 1183
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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	30 °C

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Max. mould temperature	130 °C
Hold pressure range	≥60 MPa
Hold pressure time	4 s/mm
Back pressure	As low as possible MPa
Ejection temperature	170 °C

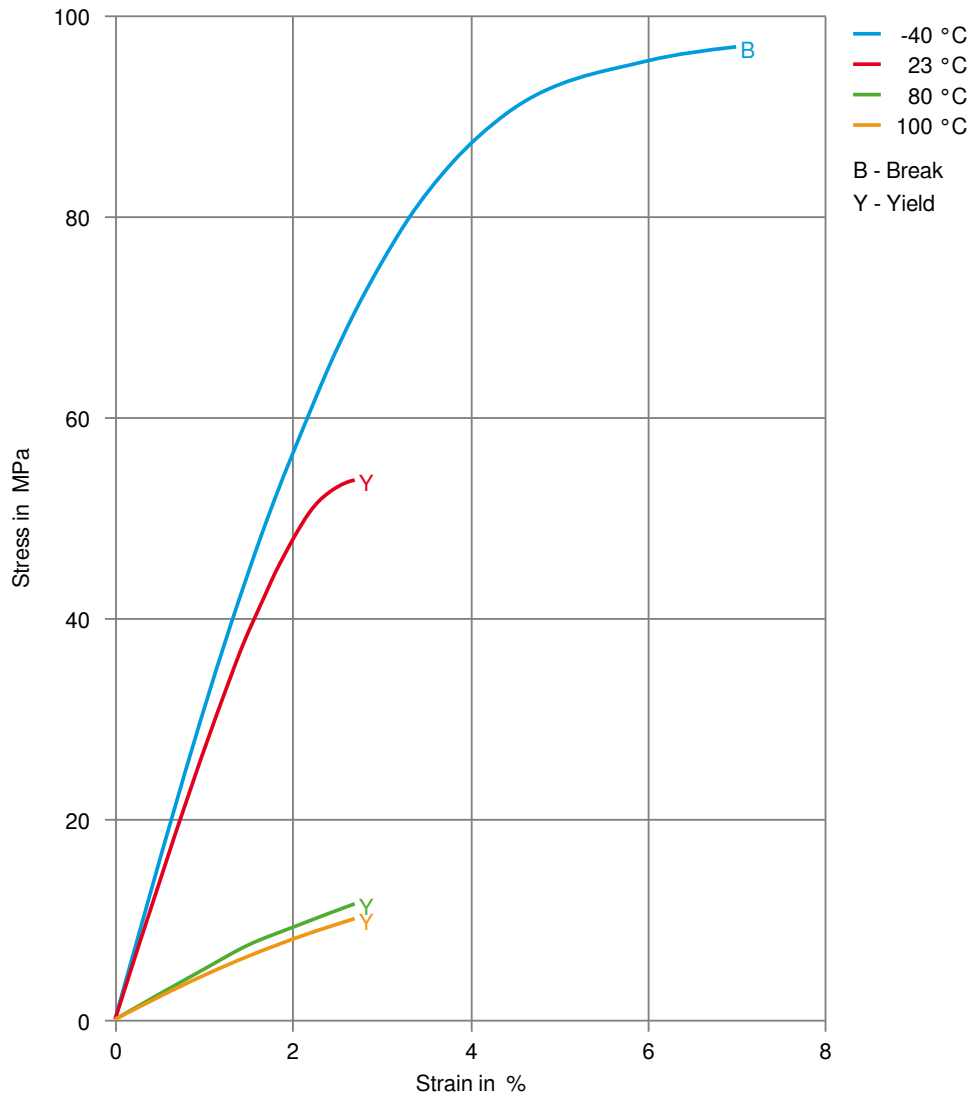
Extrusion

Drying Temperature	110 - 130 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.04 %
Melt Temperature Optimum	250 °C
Melt Temperature Range	240 - 260 °C

Stress-strain (measured on Crastin® S600F40 NC010)

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Secant modulus-strain
 (measured on Crastin® S600F40 NC010)

