Celanese
The chemistry inside innovation™

Crastin® 6140 NC010

THERMOPLASTIC POLYESTER RESIN

Crastin® 6140 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	250	g/10min	ISO 1133
Melt mass-flow rate, Temperature	482	°F	
Melt mass-flow rate, Load	4.76	lb	
Intrinsic viscosity	0.63		ISO 307, 1628
Molding shrinkage, parallel	1.5	%	ISO 294-4, 2577
Molding shrinkage, normal	1.5	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	363000	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	7980	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.8	%	ISO 527-1/-2
Charpy impact strength, 23°C	31.4	ftlb/in^2	ISO 179/1eU
Charpy notched impact strength, 23°C	0.856	ftlb/in^2	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	437	°F	ISO 11357-1/-3
Glass transition temperature, 10°C/min	131	°F	ISO 11357-1/-3

Flammability

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

Physical/Other properties

Density	0.0473	lb/in^3	ISO 1183

Injection

Drying Recommended	yes	
Drying Temperature	248	°F
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.04	%
Melt Temperature Optimum	482	°F
Min. melt temperature	464	°F
Max. melt temperature	500	°F
Mold Temperature Optimum	176	°F
Min. mold temperature	140	°F
Max. mold temperature	266	°F
Hold pressure range	≥8700	psi

Crastin® 6140 NC010

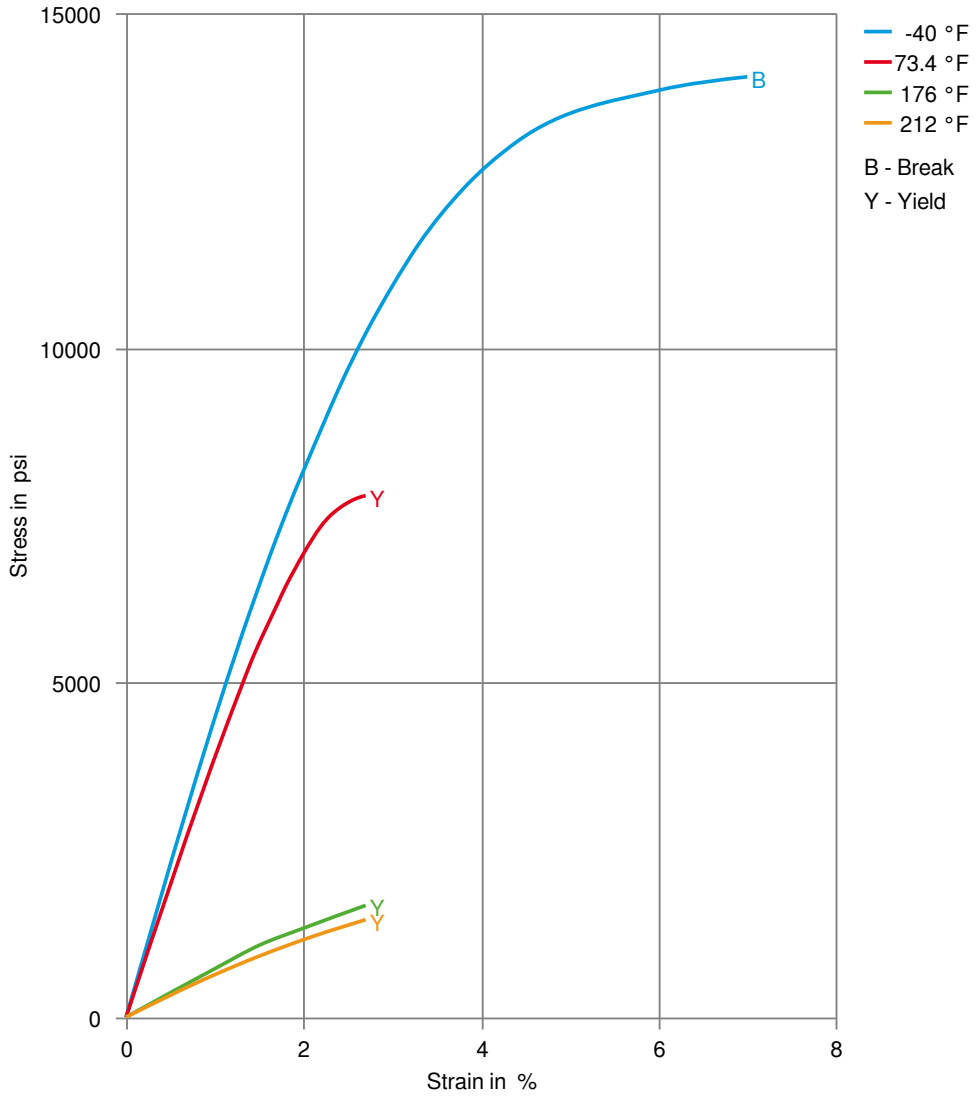
THERMOPLASTIC POLYESTER RESIN

Hold pressure time	0.102	s/mil
Hold Pressure Time (h is the max. wall thickness of the part in mm)	$1.5h^2+2$	s
Back pressure	as low as possible	psi
Ejection temperature	338	°F

Characteristics

Processing	Melt blowing / Nonwovens

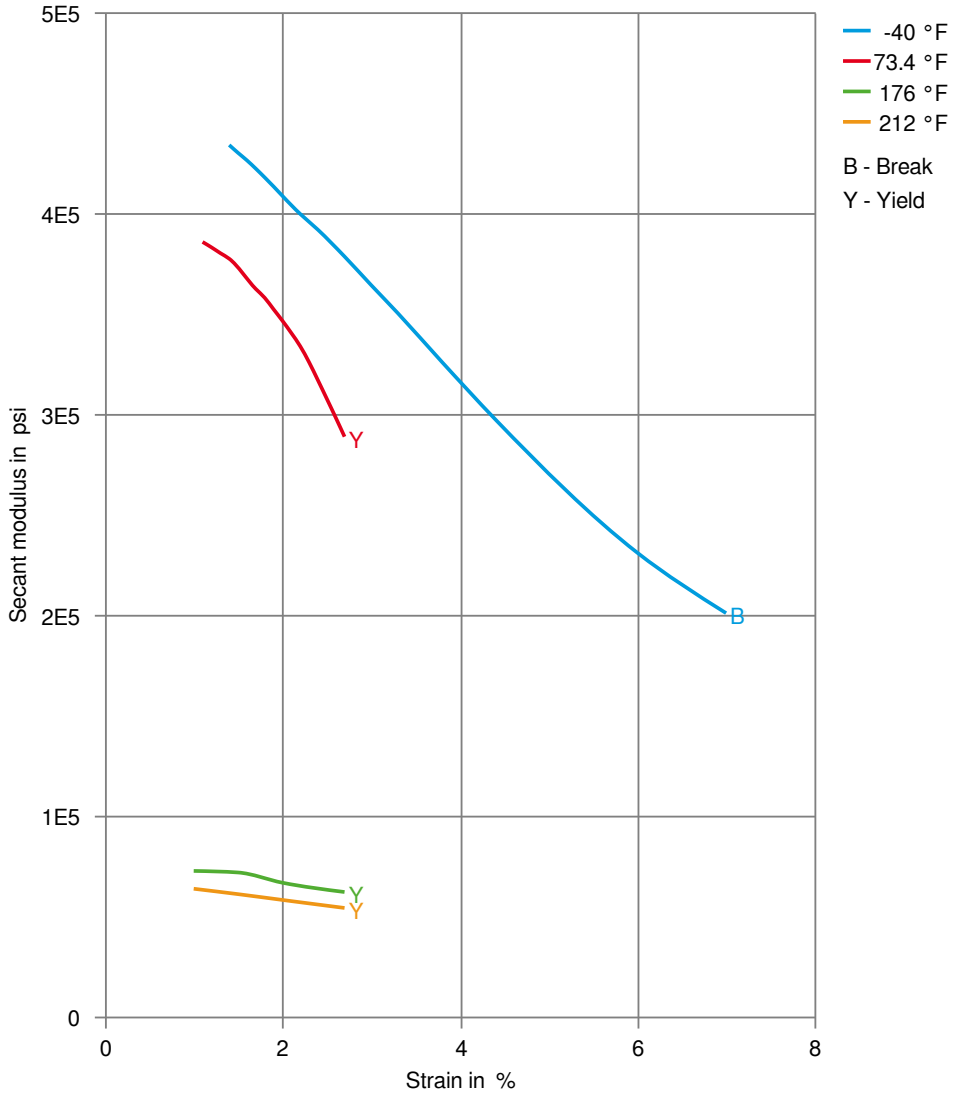
Stress-strain
(measured on Crastin® S600F40 NC010)



Crastin® 6140 NC010

THERMOPLASTIC POLYESTER RESIN

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



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