

Product Texts

Common features of Crastin® thermoplastic polyester resin include mechanical and physical properties such as stiffness and toughness, heat resistance, friction and wear resistance, excellent surface finishes and good colourability. Crastin® thermoplastic polyester resin has excellent electrical insulation characteristics and high arc-resistant grades are available. Many flame retardant grades have UL recognition (class V-0). Crastin® thermoplastic polyester resin typically has high chemical and heat ageing resistance.

The good melt stability of Crastin® thermoplastic polyester resin normally enables the recycling of properly handled production waste.

If recycling is not possible, we recommend, as the preferred option, incineration with energy recovery (-24 kJ/g of base polymer) in appropriately equipped installations. For disposal, local regulations have to be observed.

Crastin® thermoplastic polyester resin typically is used in demanding applications in the electronics, electrical, automotive, mechanical engineering, chemical, domestic appliances and sporting goods industry.

Crastin® S600F40 NC010 is an unreinforced, lubricated, low viscosity polybutylene terephthalate resin for injection molding.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	32	cm ³ /10min	ISO 1133
Temperature	250	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	1.6	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.6	%	ISO 294-4, 2577
^[C] Density of melt	1110	kg/m ³	-
^[C] Thermal conductivity of melt	0.21	W/(m K)	-
^[C] Spec. heat capacity of melt	2110	J/(kg K)	-
^[C] Ejection temperature	170	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2600	MPa	ISO 527
^[C] Yield stress	58	MPa	ISO 527
^[C] Yield strain	4	%	ISO 527
^[C] Nominal strain at break	30	%	ISO 527
^[C] Tensile creep modulus, 1h	2600	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	1800	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	4	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	4	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	224	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	55	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	50	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	115	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	175	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	120	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
^[C] Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Yellow Card available	yes	-	-
^[C] Burning rate, FMVSS, Thickness 1 mm	28	mm/min	ISO 3795 (FMVSS 302)
^[C] Oxygen index	22	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	3.8	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.2	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	20	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	200	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
^[C] Electric strength	26	kV/mm	IEC 60243-1
^[C] Comparative tracking index	575	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.4	%	Sim. to ISO 62
^[C] Humidity absorption	0.2	%	Sim. to ISO 62
^[C] Density	1310	kg/m ³	ISO 1183

[C]: CAMPUS

Material specific properties	Value	Unit	Test Standard
ISO Data			
^[C] Viscosity number	120	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Additives

Lubricants, Release agent

Delivery form

Pellets, Natural Color

Regional Availability

North America, Europe, Asia Pacific, South and Central America