

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® S600F10 NC010 is an unreinforced, lubricated, medium high viscosity polybutylene terephthalate resin for injection molding.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	10	cm ³ /10min	ISO 1133
Temperature	250	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	1.7	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.7	%	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	2100	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	57	MPa	ISO 527
^[C] Yield strain	4	%	ISO 527
^[C] Nominal strain at break	>50	%	ISO 527
^[C] Tensile creep modulus, 1h	2300	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	5	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	3.0	mm	-
Yellow Card available	yes	-	-
^[C] Oxygen index	22	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	3.6	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.2	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	10.4	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] Surface resistivity	1E15	Ohm	IEC 62631-3-2
^[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	0.5	%	Sim. to ISO 62
^[C] Humidity absorption	0.2	%	Sim. to ISO 62
^[C] Density	1300	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics

Processing

Injection Molding, Profile Extrusion, Other Extrusion, Coating

Additives

Lubricants, Release agent

Delivery form

Pellets, Natural Color

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa