

**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® SO653 NC010 is a 20% glass bead filled polybutylene terephthalate resin for injection molding. It has isotropic properties and low warpage characteristics.**

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	1.8	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	1.6	%	ISO 294-4, 2577
<sup>[C]</sup> Density of melt	1250	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	0.25	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	1850	J/(kg K)	-
<sup>[C]</sup> Ejection temperature	170	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	3500	MPa	ISO 527
<sup>[C]</sup> Stress at break	47	MPa	ISO 527
<sup>[C]</sup> Strain at break	10	%	ISO 527
<sup>[C]</sup> Tensile creep modulus, 1h	3500	MPa	ISO 899-1
<sup>[C]</sup> Tensile creep modulus, 1000h	2400	MPa	ISO 899-1
<sup>[C]</sup> Charpy impact strength, +23°C	40	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	50	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	3.5	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	3.5	kJ/m <sup>2</sup>	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	225	°C	ISO 11357-1/-3
<sup>[C]</sup> Glass transition temperature, 10°C/min	55	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	65	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	165	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	195	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	110	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
<sup>[C]</sup> Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3.0	mm	-
Yellow Card available	yes	-	-
<sup>[C]</sup> Burning rate, FMVSS, Thickness 1 mm	24	mm/min	ISO 3795 (FMVSS 302)
<sup>[C]</sup> Oxygen index	22	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Relative permittivity, 100Hz	<b>4</b>	-	IEC 62631-2-1
<sup>[C]</sup> Relative permittivity, 1MHz	<b>3.7</b>	-	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 100Hz	<b>90</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Dissipation factor, 1MHz	<b>160</b>	E-4	IEC 62631-2-1
<sup>[C]</sup> Volume resistivity	<b>&gt;1E13</b>	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Electric strength	<b>25</b>	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	<b>250</b>	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Water absorption	<b>0.35</b>	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	<b>0.2</b>	%	Sim. to ISO 62
<sup>[C]</sup> Density	<b>1450</b>	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Material specific properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Viscosity number	<b>135</b>	cm <sup>3</sup> /g	ISO 307, 1157, 1628

[C]: CAMPUS

## Characteristics

### Processing

Injection Molding

### Delivery form

Pellets, Natural Color

### Additives

Release agent

### Features

Low Warpage

### Regional Availability

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