

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® SK643FR is a flame retardant, 20% glass reinforced polybutylene terephthalate molding resin. It is recognized as UL94V-0 at 0.8mm.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	6	cm ³ /10min	ISO 1133
Temperature	250	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	0.5	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.2	%	ISO 294-4, 2577
^[C] Ejection temperature	170	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	8500	MPa	ISO 527
^[C] Stress at break	113	MPa	ISO 527
^[C] Strain at break	3	%	ISO 527
^[C] Tensile creep modulus, 1h	7200	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	5500	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	55	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	53	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	8.5	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	7.8	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	205	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	220	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	40	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	100	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
^[C] Burning Behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Yellow Card available	yes	-	-
^[C] Oxygen index	31	%	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	3.7	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	30	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	160	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	28	kV/mm	IEC 60243-1
^[C] Comparative tracking index	250	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.3	%	Sim. to ISO 62
^[C] Humidity absorption	0.15	%	Sim. to ISO 62
^[C] Density	1630	kg/m ³	ISO 1183

[C]: CAMPUS

Material specific properties	Value	Unit	Test Standard
ISO Data			
^[C] Viscosity number	100	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Delivery form

Pellets, Natural Color

Special Characteristics

Flame retardant

Regional Availability

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