Crastin® SK645FR NC010

PBT-GF30 FR(17) Celanese

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® SK645FR is a flame retardant, 30% glass reinforced polybutylene terephthalate molding resin. It is recognized as UL94V-0 at 0.75mm.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**7**	cm³/10min	ISO 1133
Temperature	**250**	°C	-
Load	**5**	kg	-
[C] Molding shrinkage, parallel	**0.4**	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.3**	%	ISO 294-4, 2577
[C] Density of melt	**1490**	kg/m³	-
[C] Thermal conductivity of melt	**0.26**	W/(m K)	-
[C] Spec. heat capacity of melt	**1600**	J/(kg K)	-
[C] Ejection temperature	**170**	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**11000**	MPa	ISO 527
[C] Stress at break	**120**	MPa	ISO 527
[C] Strain at break	**2.4**	%	ISO 527
[C] Tensile creep modulus, 1h	**11000**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	**8000**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**55**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**55**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**9**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**9**	kJ/m²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**225**	°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	**206**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**220**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**212**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**30**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**90**	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	**4.5**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.8**	-	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	**39**	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	**0.1**	%	Sim. to ISO 62
[C] Density	**1710**	kg/m³	ISO 1183

[C]: CAMPUS

Material specific properties	Value	Unit	Test Standard
ISO Data			
[C] Viscosity number	**100**	cm³/g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Special Characteristics
Flame retardant

Delivery form
Pellets, Natural Color

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