Crastin® 6129 NC010

PBT — 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® 6129 is an unreinforced, high viscosity polybutylene terephthalate for extrusion and injection molding.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**8**	cm³/10min	ISO 1133
Temperature	**250**	°C	-
Load	**2.16**	kg	-
[C] Molding shrinkage, parallel	**1.7**	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.5**	%	ISO 294-4, 2577
[C] Density of melt	**1120**	kg/m³	-
[C] Thermal conductivity of melt	**0.25**	W/(m K)	-
[C] Spec. heat capacity of melt	**2090**	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	**5**	%	ISO 527
[C] Nominal strain at break	**>50**	%	ISO 527
[C] Tensile creep modulus, 1h	**2500**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	**1800**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**5.5**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**4**	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	**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	**130**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**130**	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	**0.9**	mm	-
Yellow Card available	**yes**	-	-
[C] Burning rate, FMVSS, Thickness 1 mm	**21**	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, 1MHz	**3.2**	-	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	**1E12**	Ohm	IEC 62631-3-2
[C] Electric strength	**26**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600**	-	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	**1320**	kg/m³	ISO 1183

[C]: CAMPUS

Material specific properties	Value	Unit	Test Standard
ISO Data			
[C] Viscosity number	**150**	cm³/g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics

Processing
Injection Molding, Profile Extrusion, Sheet Extrusion, Other Extrusion, Coating

Delivery form
Pellets, Natural Color

Regional Availability
Europe, Asia Pacific