

Product Texts

Common features of Hytrel® thermoplastic polyester elastomer include mechanical and physical properties such as exceptional toughness and resilience, high resistance to creep, impact and flex fatigue, flexibility at low temperatures and good retention of properties at elevated temperatures. In addition, it resists many industrial chemicals, oils and solvents. Special grades include heat stabilised, flame retardant, food contact compliant, blow molding and extrusion grades. Concentrates offered include black pigments, UV protection additives, heat stabilisers, and flame retardants.

Hytrel® thermoplastic polyester elastomer is plasticiser free.

The good melt stability of Hytrel® thermoplastic polyester elastomer 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.

Hytrel® thermoplastic polyester elastomer typically is used in demanding applications in the automotive, fluid power, electrical/electronic, consumer goods, appliance and power tool, sporting goods, furniture, industrial and off-road transportation/equipment industry.

Hytrel® 6359FG is a high performance thermoplastic polyester elastomer developed for applications in contact with food.

FOOD CONTACT

This product is manufactured according to Good Manufacturing Practice (GMP) principles and generally accepted in food contact applications in Europe and the USA when meeting applicable use conditions. For details, individual compliance statements are available from our representative.

Typical applications:

Conveyor belts and tubing, containers with good permeation resistance to gases and liquids.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	8.5	cm ³ /10min	ISO 1133
Temperature	230	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	1.5	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.5	%	ISO 294-4, 2577
^[C] Density of melt	1040	kg/m ³	-
^[C] Thermal conductivity of melt	0.14	W/(m K)	-
^[C] Spec. heat capacity of melt	2160	J/(kg K)	-
^[C] Eff. thermal diffusivity	5.44E-8	m ² /s	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	260	MPa	ISO 527
^[C] Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	110	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	25	kJ/m ²	ISO 179/1eA
^[C] Stress at 10% elongation	15	MPa	ISO 527
^[C] Stress at break TPE	41	MPa	ISO 527
^[C] Strain at break TPE	>300	%	ISO 527
^[C] Shore D hardness	58	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	211	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	-5	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	45	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	85	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	100	°C	ISO 306

[C]: CAMPUS

Hytrel® 6359FG NC010

TPC

Celanese

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Comparative tracking index	600	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.6	%	Sim. to ISO 62
^[C] Humidity absorption	0.2	%	Sim. to ISO 62
^[C] Density	1220	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics

Processing

Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion, Casting

Delivery form

Pellets, Natural Color

Special Characteristics

Light stabilized or stable to light

Certifications

Food contact

Regional Availability

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