Hytrel® HTR8341C BK320

TPC Celanese

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® HTR8341C BK320 is designed for blow molding or processing techniques requiring high melt viscosity. It has nominal hardness of 40D, is pigmented black with fine particle size carbon black, and contains a general purpose stabilizer. It shows excellent mechanical properties at elevated temperatures, superior fatigue, abrasion, and grease resistance.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**1.6**	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.5**	%	ISO 294-4, 2577
[C] Density of melt	**990**	kg/m³	-
[C] Thermal conductivity of melt	**0.16**	W/(m K)	-
[C] Spec. heat capacity of melt	**2100**	J/(kg K)	-
[C] Eff. thermal diffusivity	**5.44E-8**	m²/s	-
[C] Ejection temperature	**145**	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**80**	MPa	ISO 527
[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	**N**	kJ/m²	ISO 179/1eA
[C] Tensile notched impact strength, +23°C	**300**	kJ/m²	ISO 8256/1
[C] Stress at 10% elongation	**6**	MPa	ISO 527
[C] Stress at 100% elongation	**13**	MPa	ISO 527
[C] Stress at 300% elongation	**23**	MPa	ISO 527
[C] Stress at break TPE	**28**	MPa	ISO 527
[C] Strain at break TPE	**>300**	%	ISO 527
[C] Shore D hardness	**37**	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**207**	°C	ISO 11357-1/-3
[C] Glass transition temperature, 10°C/min	**-40**	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**42**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**56**	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**170**	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**200**	E-6/K	ISO 11359-1/-2
[C] Burning rate, FMVSS, Thickness 1 mm	**17**	mm/min	ISO 3795 (FMVSS 302)

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			

[C] Dissipation factor, 100Hz	**300**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**95**	E-4	IEC 62631-2-1
[C] Volume resistivity	**8E10**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	**4E14**	Ohm	IEC 62631-3-2
[C] Electric strength	**19**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600**	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.5**	%	Sim. to ISO 62
[C] Humidity absorption	**0.2**	%	Sim. to ISO 62
[C] Density	**1140**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

Processing
Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion, Coating, Blow Molding, Casting, Thermoforming

Delivery form
Pellets, Black

Special Characteristics
Light stabilized or stable to light, Heat stabilized or stable to heat

Features
Fatigue Resistance

Chemical Resistance
Grease Resistance

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