

Hytrel® HTR8223 BK320

THERMOPLASTIC POLYESTER ELASTOMER

DuPont Performance Polymers

Message:

42 Shore D High Viscosity Polyester Elastomer Developed for Blow Molding

General Information			
Additive	Heat Stabilizer		
	UV Stabilizer		
Features	Heat Stabilized		
Uses	Blow Molding Applications		
	Film		
	Profiles		
	Sheet		
Forms	Pellets		
Processing Method	Blow Molding		
	Casting		
	Coating		
	Extrusion		
	Film Extrusion		
	Injection Molding		
	Profile Extrusion		
	Sheet Extrusion		
	Thermoforming		
Multi-Point Data	Isothermal Stress vs. Strain (TPE) (ISO 11403-1)		
	Shear Modulus vs. Temperature (ISO 11403-1)		
	Shear Stress vs. Shear Rate (ISO 11403-1)		
	Tensile Modulus vs. Temperature (ISO 11403-1)		
	Tensile Modulus vs. Temperature, Dynamic (ISO 11403-1)		
	Viscosity vs. Shear Rate (ISO 11403-2)		
Part Marking Code (ISO 11469)	>TPC-ET<		
Resin ID (ISO 1043)	TPC-ET		
Physical	Nominal Value	Unit	Test Method
Density	1.13	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/10.0 kg)	9.5	g/10 min	ISO 1133

Melt Volume-Flow Rate (MVR) (230°C/10.0 kg)	10.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.6	%	
Flow	1.6	%	
Water Absorption			
24 hr	0.60	%	ASTM D570
23°C, 24 hr, 2.00 mm	0.80	%	ISO 62
Equilibrium, 23°C, 2.00 mm, 50% RH	0.20	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore D	42		
Shore D, 15 sec	38		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	75.0	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Break	26.0	MPa	
5.0% Strain	3.50	MPa	
10% Strain	5.50	MPa	
50% Strain	10.0	MPa	
100% Strain	13.0	MPa	
300% Strain	19.0	MPa	
Tensile Strain (Break)	> 300	%	ISO 527-2
Nominal Tensile Strain at Break	680	%	ISO 527-2
Flexural Modulus	79.0	MPa	ISO 178
Abrasion Resistance	22.0	mm ³	ISO 4649
Effective Thermal Diffusivity	0.0544	cSt	
Elastomers	Nominal Value	Unit	Test Method
Tear Strength			ISO 34-1
Across Flow	130	kN/m	
Flow	120	kN/m	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-40°C, Partial Break	110	kJ/m ²	
23°C	No Break		
Notched Izod Impact Strength			ISO 180/1A
-50°C	No Break		
23°C	No Break		
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-100	°C	ISO 974
Glass Transition Temperature ¹	-50.0	°C	ISO 11357-2
Melting Temperature ²	195	°C	ISO 11357-3

CLTE			ISO 11359-2
Flow	1.7E-4	cm/cm/°C	
Transverse	1.7E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	2.0E+14	ohms	IEC 60093
Volume Resistivity	9.0E+12	ohms·cm	IEC 60093
Electric Strength	18	kV/mm	IEC 60243-1
Dissipation Factor			IEC 60250
100 Hz	7.0E-3		
1 MHz	0.013		
Comparative Tracking Index	600	V	IEC 60112
Fill Analysis	Nominal Value	Unit	
Melt Density	1.00	g/cm ³	
NOTE			
1.	10°C/min		
2.	10°C/min		

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