DuPont Performance Polymers Hytrel® HTR8223 BK320 Polyester Elastomer TPC-ET (Unverified Data**)

Category : Polymer , Thermoplastic , Polyester, TP , Polyester Thermoplastic Elastomer

Material Notes:

42 Shore D High Viscosity Polyester Elastomer Developed for Blow MoldingInformation provided by DuPont Performance Polymers

Order this product through the following link:
http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Hytrel-HTR8223-BK320-Polyester-Elastomer-TPC-ET-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.00 g/cc	0.0361 lb/in³	
	1.13 g/cc	0.0408 lb/in³	ISO 1183
Water Absorption	0.80 % @Thickness 2.00 mm	0.80 % @Thickness 0.0787 in	Sim. to ISO 62
Moisture Absorption	0.200 % @Thickness 2.00 mm	0.200 % @Thickness 0.0787 in	Sim. to ISO 62
Water Absorption at Saturation	0.60 %	0.60 %	Immersion 24h; ASTM D570
Viscosity	135000 cP @Shear Rate 5000 1/s, Temperature 230 °C	135000 cP @Shear Rate 5000 1/s, Temperature 446 °F	ISO 11403-1 -2
	540000 cP @Shear Rate 500 1/s, Temperature 230 °C	540000 cP @Shear Rate 500 1/s, Temperature 446 °F	ISO 11403-1 -2
	2.60e+6 cP @Shear Rate 10.0 1/s, Temperature 230 °C	2.60e+6 cP @Shear Rate 10.0 1/s, Temperature 446 °F	ISO 11403-1 -2
Linear Mold Shrinkage, Flow	0.016 cm/cm	0.016 in/in	ISO 294-4 2577
Linear Mold Shrinkage, Transverse	0.016 cm/cm	0.016 in/in	ISO 294-4 2577
Melt Flow	9.5 g/10 min @Load 10.0 kg, Temperature 230 °C	9.5 g/10 min @Load 22.0 lb, Temperature 446 °F	ISO 1133
	10 g/10 min @Load 10.0 kg, Temperature 230 °C	10 g/10 min @Load 22.0 lb, Temperature 446 °F	cm³/10min; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	38	38	15s; ISO 868
	<= 42	<= 42	ISO 868
Tensile Strength at Break	26.0 MPa	3770 psi	ISO 527-1/-2
Tensile Stress	3.50 MPa @Strain 5.00 %	508 psi @Strain 5.00 %	ISO 527-1/-2
	5.50 MPa @Strain 10.0 %	798 psi @Strain 10.0 %	ISO 527-1/-2
	10.0 MPa @Strain 50.0 %	1450 psi @Strain 50.0 %	ISO 527-1/-2
	13.0 MPa @Strain 100 %	1890 psi @Strain 100 %	ISO 527-1/-2
	19.0 MPa @Strain 300 %	2760 psi @Strain 300 %	ISO 527-1/-2
	0.590 MPa @Strain 0.230 %, Temperature -40.0 °C	85.6 psi @Strain 0.230 %, Temperature -40.0 °F	TPE; ISO 11403-1 -2
	0.800 MPa @Strain 2.10 %, Temperature 150 °C	116 psi @Strain 2.10 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	1.63 MPa @Strain 3.43 %, Temperature 120 °C	236 psi @Strain 3.43 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	2.09 MPa @Strain 9.54 %, Temperature 150 °C	303 psi @Strain 9.54 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	2.49 MPa @Strain 5.06 %, Temperature 90.0 °C	361 psi @Strain 5.06 %, Temperature 194 °F	TPE; ISO 11403-1 -2
	2.70 MPa @Strain 17.6 %, Temperature 150 °C	392 psi @Strain 17.6 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	3.05 MPa	442 psi	TPE; ISO 11403-1 -2

Mechanical Properties	Metric	English	Comments
	@Strain 26.28 %, Temperature 150 °C	@Strain 26.28 %, Temperature 302 °F	
	3.27 MPa	474 psi	
	@Strain 35.21 %, Temperature 150 °C	@Strain 35.21 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	3.49 MPa	506 psi	
	@Strain 47.26 %, Temperature 150 °C	@Strain 47.26 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	3.66 MPa	531 psi	
	@Strain 59.34 %, Temperature 150 °C	@Strain 59.34 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	3.67 MPa	532 psi	
	@Strain 14.49 %, Temperature 120 °C	@Strain 14.49 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	3.80 MPa	551 psi	
	@Strain 71.13 %, Temperature 150 °C	@Strain 71.13 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	3.94 MPa	571 psi	
	@Strain 82.6 %, Temperature 150 °C	@Strain 82.6 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	4.14 MPa	600 psi	
	@Strain 98.83 %, Temperature 150 °C	@Strain 98.83 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	4.28 MPa	621 psi	
	@Strain 109.17 %, Temperature 150 °C	@Strain 109.17 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	4.44 MPa	644 psi	
	@Strain 121.65 %, Temperature 150 °C	@Strain 121.65 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	4.57 MPa	663 psi	
	@Strain 26.51 %, Temperature 120 °C	@Strain 26.51 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	4.66 MPa	676 psi	
	@Strain 138.08 %, Temperature 150 °C	@Strain 138.08 %, Temperature 302 °F	TPE; ISO 11403-1 -2
	5.10 MPa	740 psi	
	@Strain 38.95 %, Temperature 120 °C	@Strain 38.95 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	5.48 MPa	795 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 22.21 %, Temperature 90.0 °C	@Strain 22.21 %, Temperature 194 °F	ISO 11403-1 -2
	5.49 MPa @Strain 51.4 %, Temperature 120 °C	796 psi @Strain 51.4 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	5.50 MPa @Strain 13.54 %, Temperature 60.0 °C	798 psi @Strain 13.54 %, Temperature 140 °F	TPE; ISO 11403-1 -2
	5.93 MPa @Strain 67.6 %, Temperature 120 °C	860 psi @Strain 67.6 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	6.32 MPa @Strain 82.83 %, Temperature 120 °C	917 psi @Strain 82.83 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	6.50 MPa @Strain 41.29 %, Temperature 90.0 °C	943 psi @Strain 41.29 %, Temperature 194 °F	TPE; ISO 11403-1 -2
	6.69 MPa @Strain 97.45 %, Temperature 120 °C	970 psi @Strain 97.45 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	7.03 MPa @Strain 111.25 %, Temperature 120 °C	1020 psi @Strain 111.25 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	7.08 MPa @Strain 15.55 %, Temperature 40.0 °C	1030 psi @Strain 15.55 %, Temperature 104 °F	TPE; ISO 11403-1 -2
	7.09 MPa @Strain 60.93 %, Temperature 90.0 °C	1030 psi @Strain 60.93 %, Temperature 194 °F	TPE; ISO 11403-1 -2
	7.53 MPa @Strain 130.82 %, Temperature 120 °C	1090 psi @Strain 130.82 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	7.57 MPa @Strain 80.16 %, Temperature 90.0 °C	1100 psi @Strain 80.16 %, Temperature 194 °F	TPE; ISO 11403-1 -2
	7.82 MPa @Strain 37.99 %, Temperature 60.0 °C	1130 psi @Strain 37.99 %, Temperature 140 °F	TPE; ISO 11403-1 -2

Mechanical Properties	Metric	English	Comments
	7.83 MPa @Strain 142.91 %, Temperature 120 °C	1140 psi @Strain 142.91 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	8.00 MPa @Strain 14.96 %, Temperature 23.0 °C	1160 psi @Strain 14.96 %, Temperature 73.4 °F	TPE; ISO 11403-1 -2
	8.17 MPa @Strain 104.16 %, Temperature 90.0 °C	1180 psi @Strain 104.16 %, Temperature 194 °F	TPE; ISO 11403-1 -2
	8.20 MPa @Strain 157.24 %, Temperature 120 °C	1190 psi @Strain 157.24 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	8.66 MPa @Strain 9.79 %, Temperature -20.0 °C	1260 psi @Strain 9.79 %, Temperature -4.00 °F	TPE; ISO 11403-1 -2
	8.69 MPa @Strain 175.85 %, Temperature 120 °C	1260 psi @Strain 175.85 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	8.74 MPa @Strain 126.26 %, Temperature 90.0 °C	1270 psi @Strain 126.26 %, Temperature 194 °F	TPE; ISO 11403-1 -2
	8.76 MPa @Strain 64.0 %, Temperature 60.0 °C	1270 psi @Strain 64.0 %, Temperature 140 °F	TPE; ISO 11403-1 -2
	9.20 MPa @Strain 195.71 %, Temperature 120 °C	1330 psi @Strain 195.71 %, Temperature 248 °F	TPE; ISO 11403-1 -2
	9.27 MPa @Strain 146.52 %, Temperature 90.0 °C	1340 psi @Strain 146.52 %, Temperature 194 °F	TPE; ISO 11403-1 -2
	9.52 MPa @Strain 88.68 %, Temperature 60.0 °C	1380 psi @Strain 88.68 %, Temperature 140 °F	TPE; ISO 11403-1 -2
	9.54 MPa @Strain 44.98 %, Temperature 40.0 °C	1380 psi @Strain 44.98 %, Temperature 104 °F	TPE; ISO 11403-1 -2
	9.64 MPa	1400 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 15.8 %, Temperature 0.000 °C	@Strain 15.8 %, Temperature 32.0 °F	TPE; ISO 11403-1 -2
	9.77 MPa @Strain 165.32 %, Temperature 90.0 °C	1420 psi @Strain 165.32 %, Temperature 194 °F	 TPE; ISO 11403-1 -2

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