

## DuPont Performance Polymers Hytel® HTR8136BK TPC-ET (Unverified Data\*\*)

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

### Material Notes:

Hytel® HTR8136BK is designed for blow molding or processing by techniques requiring high melt viscosity. It has nominal durometer hardness of 49D, is pigmented black with fine particle size carbon black, and contains a general purpose stabilizer. Information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Hytel-HTR8136BK-TPC-ET-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Hytel-HTR8136BK-TPC-ET-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.16 g/cc	1.16 g/cc	ASTM D792
Density	1.16 g/cc	0.0419 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.20 %	0.20 %	Equilibrium 50%RH; ISO 62
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.70 %	0.70 %	Immersion 24h; ASTM D570
	@Temperature 23.0 °C	@Temperature 73.4 °F	
0.70 %	0.70 %	Immersion 24h; ISO 62	
@Temperature 23.0 °C	@Temperature 73.4 °F		
Melt Flow	0.70 %	0.70 %	Saturation, immersed; ISO 62
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	2.5 g/10 min	2.5 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 230 °C	@Load 4.76 lb, Temperature 446 °F	
2.5 g/10 min	2.5 g/10 min	ISO 1133	
@Load 2.16 kg, Temperature 230 °C	@Load 4.76 lb, Temperature 446 °F		

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	<= 49	<= 49	ISO 868
	<= 50	<= 50	ASTM D2240
Tensile Strength at Break	30.7 MPa	4450 psi	ASTM D638
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	35.0 MPa	5080 psi	

Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	ISO 527 (1BA bar) Comments
Tensile Stress	5.00 MPa	725 psi	ASTM D638
	@Strain 5.00 %, Temperature 23.0 °C	@Strain 5.00 %, Temperature 73.4 °F	
	6.90 MPa	1000 psi	ASTM D638
	@Strain 10.0 %, Temperature 23.0 °C	@Strain 10.0 %, Temperature 73.4 °F	
	7.90 MPa	1150 psi	ISO 527 (1BA bar)
	@Strain 10.0 %, Temperature 23.0 °C	@Strain 10.0 %, Temperature 73.4 °F	
	8.20 MPa	1190 psi	ASTM D638
	@Strain 15.0 %, Temperature 23.0 °C	@Strain 15.0 %, Temperature 73.4 °F	
Elongation at Break	>= 300 %	>= 300 %	ISO 527 (1BA bar)
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	420 %	420 %	ISO 527 (1BA bar)
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	550 %	550 %	ASTM D638
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Flexural Modulus	0.0530 GPa	7.69 ksi	ASTM D790
	@Temperature 125 °C	@Temperature 257 °F	
	0.112 GPa	16.2 ksi	ASTM D790
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.115 GPa	16.7 ksi	ISO 178
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.255 GPa	37.0 ksi	ASTM D790
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Izod Impact, Notched	NB	NB	ASTM D256
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Izod Impact, Notched (ISO)	NB	NB	ISO 180/1A
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	NB	NB	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Mechanical Properties	Metric/cm <sup>2</sup>	English/lb/in <sup>2</sup>	Comments
Charpy Impact, Notched	@Temperature -40.0 °C	@Temperature -40.0 °F	ISO 179/1eA
	NB	NB	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	500 µm/m-°C	278 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F	
	500 µm/m-°C	278 µin/in-°F	ASTM E 831
	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	
	500 µm/m-°C	278 µin/in-°F	ASTM E 831
	@Temperature 55.0 - 120 °C	@Temperature 131 - 248 °F	
	500 µm/m-°C	278 µin/in-°F	ISO 11359-1/-2
	@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F	
	500 µm/m-°C	278 µin/in-°F	ISO 11359-1/-2
	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	
	500 µm/m-°C	278 µin/in-°F	ISO 11359-1/-2
	@Temperature 55.0 - 120 °C	@Temperature 131 - 248 °F	
CTE, linear, Transverse to Flow	130 µm/m-°C	72.2 µin/in-°F	ASTM E 831
	@Temperature 55.0 - 120 °C	@Temperature 131 - 248 °F	
	130 µm/m-°C	72.2 µin/in-°F	ISO 11359-1/-2
	@Temperature 55.0 - 120 °C	@Temperature 131 - 248 °F	
	159 µm/m-°C	88.3 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F	
	159 µm/m-°C	88.3 µin/in-°F	ISO 11359-1/-2
	@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F	
	166 µm/m-°C	92.2 µin/in-°F	

Thermal Properties	Metric	English	ASTM F 831 Comments
	@ Temperature 23.0 - 55.0 °C	@ Temperature 73.4 - 131 °F	
	166 µm/m-°C	92.2 µin/in-°F	
	@ Temperature 23.0 - 55.0 °C	@ Temperature 73.4 - 131 °F	ISO 11359-1/-2
Melting Point	196 °C	385 °F	ASTM D3418
	197 °C	387 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 1.8 MPa (264 psi)	40.0 °C	104 °F	ISO 75-1/-2
Brittleness Temperature	-100 °C	-148 °F	ISO 974

Processing Properties	Metric	English	Comments
Melt Temperature	230 °C	446 °F	Optimum; Injection Molding
Mold Temperature	45.0 °C	113 °F	optimum; Injection Molding
	40.0 - 50.0 °C	104 - 122 °F	Injection Molding
Drying Temperature	110 °C	230 °F	Blow Molding
	110 °C	230 °F	Injection Molding
Dry Time	3.00 - 4.00 hour	3.00 - 4.00 hour	Blow Molding
	3.00 - 4.00 hour	3.00 - 4.00 hour	Injection Molding
Moisture Content	<= 0.020 %	<= 0.020 %	Blow Molding
	<= 0.020 %	<= 0.020 %	Injection Molding

Descriptive Properties	Value	Comments
Additive	Antioxidant	
Appearance	Black Color	
Features	Abrasion Resistance	
	Fatigue Resistance	
	Flexibility, Low Temperature	
	Grease Resistant	
	Melt Strength, Good	
	Viscosity, High	

Descriptive Properties	Value	Comments
Generic	TPC-ET	
Material Status	Current	
Part Marking Code	>TPC-ET<	ISO 11469
Processing Method	Blow Molding	
Product Category	Blow Moldable Resins	
	Extrusion Resins	
Resin Identification	TPC-ET	ISO 1043
RoHS Compliance	Contact Manufacturer	
Uses	Automotive Applications	

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