

DuPont Performance Polymers Hytrel® 4069 Polyester Elastomer TPC-ET (Unverified Data**)

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

Material Notes:

40 Shore D High Performance Polyester Elastomer Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Hytrel-4069-Polyester-Elastomer-TPC-ET-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.10 g/cc	0.0397 lb/in ³	
	1.11 g/cc	0.0401 lb/in ³	ISO 1183
Water Absorption	0.70 %	0.70 %	Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Moisture Absorption	0.300 %	0.300 %	Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Water Absorption at Saturation	0.70 %	0.70 %	Immersion 24h; ASTM D570
Viscosity	59000 cP	59000 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 250 °C	@Shear Rate 5000 1/s, Temperature 482 °F	
	65000 cP	65000 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 230 °C	@Shear Rate 5000 1/s, Temperature 446 °F	
	73000 cP	73000 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 210 °C	@Shear Rate 5000 1/s, Temperature 410 °F	
	216000 cP	216000 cP	ISO 11403-1 -2
@Shear Rate 500 1/s, Temperature 250 °C	@Shear Rate 500 1/s, Temperature 482 °F		
268000 cP	268000 cP	ISO 11403-1 -2	
@Shear Rate 500 1/s, Temperature 230 °C	@Shear Rate 500 1/s, Temperature 446 °F		
327000 cP	327000 cP	ISO 11403-1 -2	
@Shear Rate 500 1/s, Temperature 210 °C	@Shear Rate 500 1/s, Temperature 410 °F		
Linear Mold Shrinkage, Flow	0.0080 cm/cm	0.0080 in/in	ISO 294-4 2577

Linear Mold Shrinkage, Transverse Physical Properties	0.0080 cm/cm Metric	0.0080 in/in English	ISO 294-4 2577 Comments
Melt Flow	7.7 g/10 min @Load 2.16 kg, Temperature 220 °C	7.7 g/10 min @Load 4.76 lb, Temperature 428 °F	cm ³ /10min; ISO 1133
	8.5 g/10 min @Load 2.16 kg, Temperature 220 °C	8.5 g/10 min @Load 4.76 lb, Temperature 428 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	33	33	15s; ISO 868
	<= 37	<= 37	ISO 868
Tensile Strength at Break	29.0 MPa	4210 psi	ISO 527-1/-2
Tensile Stress	3.20 MPa @Strain 10.0 %	464 psi @Strain 10.0 %	ISO 527-1/-2
	6.70 MPa @Strain 50.0 %	972 psi @Strain 50.0 %	ISO 527-1/-2
Elongation at Break	>= 300 %	>= 300 %	ISO 527-1/-2
	800 %	800 %	Nominal; ISO 527-1/-2
Tensile Modulus	0.0450 GPa	6.53 ksi	ISO 527-1/-2
Flexural Modulus	0.0450 GPa	6.53 ksi	ISO 178
Izod Impact, Notched (ISO)	NB	NB	ISO 180/1A
	NB @Temperature -40.0 °C	NB @Temperature -40.0 °F	ISO 180/1A
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	NB	NB	ISO 179/1eA
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eA
	NB @Temperature -40.0 °C	NB @Temperature -40.0 °F	ISO 179/1eA

Tear Strength Mechanical Properties	100 kN/m Metric	571 pli English	parallel: ISO 34-1 Comments
	100 kN/m	571 pli	normal; ISO 34-1

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	220 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	122 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ISO 11359-1/-2
CTE, linear, Transverse to Flow	190 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	106 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ISO 11359-1/-2
Melting Point	193 $^\circ\text{C}$	379 $^\circ\text{F}$	10 $^\circ\text{C}/\text{min}$; ISO 11357-1/-3
Brittleness Temperature	-96.0 $^\circ\text{C}$	-141 $^\circ\text{F}$	ISO 974
Glass Transition Temp, Tg	-50.0 $^\circ\text{C}$	-58.0 $^\circ\text{F}$	10 $^\circ\text{C}/\text{min}$; ISO 11357-1/-2
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	IEC 60695-11-10
	@Thickness 3.00 mm	@Thickness 0.118 in	
Oxygen Index	20 %	20 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	4.00e+12 ohm-cm	4.00e+12 ohm-cm	IEC 60093
Surface Resistance	3.00e+14 ohm	3.00e+14 ohm	IEC 60093
Dielectric Constant	4.7	4.7	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	4.8	4.8	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	18.0 kV/mm	457 kV/in	IEC 60243-1
Dissipation Factor	0.013	0.013	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.020	0.020	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112

Descriptive Properties	Value	Comments
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Delivery Form Descriptive Properties	Pellets Value	Comments
Emission of organic compounds	10 µgC/g	VDA 277
Odour	class 4	VDA 270
Part Marking Code	>TPC-ET<	ISO 11469
Processing	Casting	
	Coatable	
	Film Extrusion	
	Injection Moulding	
	Other Extrusion	
	Profile Extrusion	
	Sheet Extrusion	
	Thermoforming	
Regional Availability	Asia Pacific	
	Europe	
	Global	
	Near East/Africa	
	North America	
	South and Central America	
Resin Identification	TPC-ET	ISO 1043
Special Characteristics	Light stabilised or stable to light	
UL recognition	UL	

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