

DuPont™ Hytrel®

thermoplastic polyester elastomer

Hytrel® 7246

Hytrel® 7246 is a high modulus grade with nominal hardness of 72D. It contains non-discoloring stabilizer. It can be processed by many conventional thermoplastic processing techniques like injection molding and extrusion.

Property	Test Method	Units	Value
Identification			
Resin Identification	ISO 1043		TPC-ET
Part Marking Code	ISO 11469		>TPC-ET<
Mechanical			
Tensile Stress	ISO 527	MPa (kpsi)	
@ 5% Strain			14 (2)
@ 10% Strain			23 (3.3)
Stress at Break	ISO 527	MPa (kpsi)	53 (7.7)
Strain at Break	ISO 527	%	450
Tensile Modulus	ISO 527	MPa (kpsi)	525 (76)
Flexural Modulus	ISO 178	MPa (kpsi)	
-40°C (-40°F)			2350 (340)
23°C (73°F)			550 (80)
100°C (212°F)			200 (28)
Hardness, Shore D	ISO 868		
15s			68
Maximum			72
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	33
Brittleness Temperature	ISO 974	°C (°F)	-97 (-142)
Tear Strength	ISO 34-1 method B/a	kN/m (lb/in)	
Normal			167 (954.2)
Parallel			200 (1143)

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.
 Test specimen for ISO 527 is 1BA (2mm) at 50mm/min; all other ISO & ASTM mechanical properties measured at 4mm; ISO electrical properties measured at 2mm.
 All mechanical & electrical properties measured on injection molded specimens.
 Test temperatures are 23°C unless otherwise stated.

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Property	Test Method	Units	Value
Thermal			
Deflection Temperature 0.45MPa	ISO 75f	°C (°F)	95 (205)
1.80MPa			45 (113)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	218 (424)
Glass Transition Temperature 10°C/min	ISO 11357-1/-2	°C (°F)	25 (77)
Vicat Softening Temperature 10N, 50°C/h	ISO 306	°C (°F)	205 (401)
Rheological			
Melt Mass-Flow Rate 240°C, 2.16kg	ISO 1133	g/10 min	12.5
Electrical			
Relative Permittivity 1E2 Hz	IEC 60250		4.0
1E6 Hz			3.5
Volume Resistivity	IEC 60093	ohm m	2E10
Dissipation Factor 1E2 Hz	IEC 60250	E-4	160
1E6 Hz			300
Electric Strength	IEC 60243-1	kV/mm	20
Flammability			
Flammability Classification 1.5mm	UL94		HB
Oxygen Index	ISO 4589-1/-2	%	23

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Property	Test Method	Units	Value
Other			
Density	ISO 1183	kg/m ³ (g/cm ³)	1260 (1.26)
Water Absorption	ISO 62	%	
Equilibrium 50%RH			0.2
Immersion 24h			0.3
Saturation, immersed			0.6
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			1.7
Parallel, 2.0mm			1.6
Processing - Injection Molding			
Melt Temperature Optimum		°C (°F)	245 (475)
Mold Temperature Range		°C (°F)	45-55 (115-130)
Mold Temperature Optimum		°C (°F)	45 (115)
Drying Time, Dehumidified Dryer		h	2-3
Drying Temperature		°C (°F)	110 (230)
Processing Moisture Content		%	<0.08
Snake Flow		mm (in)	
Inject press 62MPa(9000psi), 1mm (0.040in)			78 (3.1)
Inject press 62MPa(9000psi), 2.5mm (0.100in)			330 (13)
Inject press 83MPa(12,000psi), 1mm (0.040in)			94 (3.7)
Inject press 83MPa(12,000psi), 2.5mm (0.100in)			432 (17)
Processing - Extrusion			
Melt Temperature Optimum		°C (°F)	235 (455)
Drying Time, Dehumidified Dryer		h	2-3
Drying Temperature		°C (°F)	110 (230)
Processing Moisture Content		%	<0.08

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