

DuPont™ Hytrel®

thermoplastic polyester elastomer

Hytrel® 5526

Hytrel® 5526 is a medium modulus Hytrel® grade with nominal durometer hardness of 55D. It contains non-discoloring stabilizer. It is specially recommended for injection molding applications requiring high flow properties.

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			6.9 (1)
@ 10% Strain			11.0 (1.6)
Yield Stress	ISO 527	MPa (kpsi)	14 (2.0)
Stress at Break	ISO 527	MPa (kpsi)	44 (6.4)
Strain at Break	ISO 527	%	500
Nominal Strain at Break	ISO 527	%	800
Yield Strain	ISO 527	%	37
Tensile Modulus	ISO 527	MPa (kpsi)	188 (27.3)
Flexural Modulus	ISO 178	MPa (kpsi)	
-40°C (-40°F)			760 (110)
23°C (73°F)			200 (29)
100°C (212°F)			100 (14)
Hardness, Shore D	ISO 868		
15s			51
Maximum			55
Tensile Impact Strength	ISO 8256	kJ/m ²	200
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	
-40°C (-40°F)			148
-30°C (-22°F)			90
23°C (73°F)			NB

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
Mechanical			
Unnotched Charpy Impact Strength -30°C (-22°F) 23°C (73°F)	ISO 179/1eU	kJ/m ²	NB NB
Brittleness Temperature	ISO 974	°C (°F)	-98 (-144)
Tear Strength	ISO 34-1 method B/a	kN/m (lb/in)	
Normal			133 (760)
Parallel			133 (760)
Thermal			
Deflection Temperature 0.45MPa 1.80MPa	ISO 75f	°C (°F)	65 (150) 45 (113)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	203 (397)
CLTE, Normal -40 - 23°C (-40 - 73°F) 23 - 55°C (73 - 130°F) 55 - 120°C (130 - 248°F)	ISO 11359-1/-2	E-4/C (E-4/F)	2.11 (1.17) 1.86 (1.03) 1.14 (0.63)
CLTE, Parallel -40 - 23°C (-40 - 73°F) 23 - 55°C (73 - 130°F) 55 - 120°C (130 - 248°F)	ISO 11359-1/-2	E-4/C (E-4/F)	2.05 (1.14) 1.97 (1.09) 1.60 (0.89)
Glass Transition Temperature 10°C/min	ISO 11357-1/-2	°C (°F)	-20 (-5)
Vicat Softening Temperature 10N, 50°C/h	ISO 306	°C (°F)	180 (356)
Rheological			
Melt Mass-Flow Rate 220°C, 2.16kg	ISO 1133	g/10 min	18

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Property	Test Method	Units	Value
Electrical			
Surface Resistivity	IEC 60093	ohm	2E15
Relative Permittivity	IEC 60250		
1E2 Hz			4.9
1E6 Hz			4.6
Volume Resistivity	IEC 60093	ohm m	4E11
Dissipation Factor	IEC 60250	E-4	
1E2 Hz			90
1E6 Hz			375
Electric Strength	IEC 60243-1	kV/mm	20
CTI	IEC 60112	V	>600
Flammability			
Flammability Classification	IEC 60695-11-10		
1.5mm			HB
3.0mm			HB
Flammability Classification	UL94		
1.5mm			HB
3.0mm			HB
Oxygen Index	ISO 4589-1/-2	%	21
Hot Wire Ignition	UL 746A	s	
3.0mm			32
Temperature Index			
RTI, Electrical	UL 746B	°C	
1.5mm			50
3.0mm			50
RTI, Impact	UL 746B	°C	
1.5mm			50
3.0mm			50
RTI, Strength	UL 746B	°C	
1.5mm			50
3.0mm			50

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Property	Test Method	Units	Value
Other			
Density	ISO 1183	kg/m ³ (g/cm ³)	1190 (1.19)
Water Absorption	ISO 62	%	
Equilibrium 50%RH			0.2
Immersion 24h			0.6
Saturation, immersed			0.6
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			1.4
Parallel, 2.0mm			1.4
Processing - Injection Molding			
Melt Temperature Optimum		°C (°F)	230 (445)
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)	100 (210)
Processing Moisture Content		%	<0.08
Snake Flow		mm (in)	
Inject press 62MPa(9000psi), 1mm (0.040in)			105 (4.1)
Inject press 62MPa(9000psi), 2.5mm (0.100in)			457 (18)
Inject press 83MPa(12,000psi), 1mm (0.040in)			125 (4.9)
Inject press 83MPa(12,000psi), 2.5mm (0.100in)			585 (23)

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