Hytrel® 5526

THERMOPLASTIC POLYESTER ELASTOMER

DuPont Performance Polymers

Message:

55 Shore D High Performance High Flow Polyester Elastomer Developed for Injection Molding

General Information		
UL YellowCard	E83247-251127	E41938-234580
Additive	UV Stabilizer	
Agency Ratings	UL Unspecified Rating	
Forms	Pellets	
Processing Method	Injection Molding Thermoforming	
Multi-Point Data	Creep Modulus vs. Time (ISO 11403-1) Isochronous Stress vs. Strain (ISO 11403-1) Isothermal Stress vs. Strain (ISO 11403-1) Isothermal Stress vs. Strain (TPE) (ISO 11403-1) Secant Modulus vs. Strain (ISO 11403-1) Shear Modulus vs. Temperature (ISO 11403-1) Shear Stress vs. Shear Rate (ISO 11403-1) Specific Volume vs Temperature (ISO 11403-2) Viscosity vs. Shear Rate (ISO 11403-2)	
Part Marking Code (ISO 11469)	>TPC-ET<	
Resin ID (ISO 1043)	TPC-ET	

Physical	Nominal Value	Unit	Test Method
Density	1.19	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/2.16 kg)	18	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/2.16 kg)	16.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.4	%	
Flow	1.4	%	
Water Absorption			
24 hr	0.60	%	ASTM D570
23°C, 24 hr, 2.00 mm	0.60	%	ISO 62
Equilibrium, 23°C, 2.00 mm, 50% RH	0.20	%	ISO 62

Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868

Shore D	55		
Shore D, 15 sec	51		
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	190	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Yield	14.0	MPa	
Break	43.0	MPa	
5.0% Strain	6.90	MPa	
10% Strain	11.0	MPa	
50% Strain	14.0	MPa	
Tensile Strain			ISO 527-2
Yield	37	%	
Break	> 300	%	
Nominal Tensile Strain at Break	780	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	170	MPa	
1000 hr	130	MPa	
Flexural Modulus	200	MPa	ISO 178
Abrasion Resistance	120	mm^3	ISO 4649
Specific Heat Capacity of Melt	2110	J/kg/°C	
Thermal Conductivity of Melt	0.19	W/m/K	
Effective Thermal Diffusivity	0.0544	cSt	
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tear Strength			ISO 34-1
Across Flow	130	kN/m	
Flow	130	kN/m	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-40°C	30	kJ/m^2	
-30°C, Partial Break	150	kJ/m^2	
23°C	No Break		
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Tensile Impact Strength (23°C)	200	kJ/m^2	ISO 8256/1
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	65.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	45.0	°C	ISO 75-2/A
Brittleness Temperature	-98.0	°C	ISO 974
Glass Transition Temperature [1]	-20.0	°C	ISO 11357-2
Vicat Softening Temperature			

--	180	°C	ISO 306/A50
--	75.0	°C	ISO 306/B50
Melting Temperature [2]	203	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	2.0E-4	cm/cm/°C	
Transverse	1.9E-4	cm/cm/°C	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	4.0E+13	ohms·cm	IEC 60093
Electric Strength	20	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	4.90		
1 MHz	4.60		
Dissipation Factor			IEC 60250
100 Hz	9.0E-3		
1 MHz	0.038		
Comparative Tracking Index	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Burning Rate [3] (1.00 mm)	28	mm/min	ISO 3795
Flammability Classification			IEC 60695-11-10, -20
1.50 mm	HB		
3.00 mm	HB		
Oxygen Index	21	%	ISO 4589-2
Fill Analysis	**Nominal Value**	**Unit**	
Melt Density	1.04	g/cm³	
NOTE			
1.	10°C/min		
2.	10°C/min		
3.	SE/B		

Recommended distributors for this material

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