

Hytrel® 6359FG NC010

THERMOPLASTIC POLYESTER ELASTOMER

DuPont Performance Polymers

Message:

63 Shore D High Performance Polyester Elastomer Developed for Food Contact Applications

General Information			
Additive	UV Stabilizer		
Uses	Film		
	Profiles		
	Sheet		
Forms	Pellets		
Processing Method	Casting		
	Extrusion		
	Film Extrusion		
	Injection Molding		
	Profile Extrusion		
	Sheet Extrusion		
Multi-Point Data	Isothermal Stress vs. Strain (TPE) (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	1.22	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	9.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	8.50	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.5	%	
Flow	1.5	%	
Water Absorption			ISO 62
23°C, 24 hr, 2.00 mm	0.60	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	0.20	%	
Hardness	Nominal Value	Unit	Test Method

Shore Hardness			ISO 868
Shore D	63		
Shore D, 15 sec	58		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	260	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Yield	19.0	MPa	
Break	41.0	MPa	
5.0% Strain	12.0	MPa	
10% Strain	15.0	MPa	
Tensile Strain			ISO 527-2
Yield	27	%	
Break	> 300	%	
Elastomers	Nominal Value	Unit	Test Method
Tear Strength			ISO 34-1
Across Flow	150	kN/m	
Flow	160	kN/m	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-40°C	15	kJ/m ²	
-30°C	25	kJ/m ²	
23°C, Partial Break	120	kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-40°C	19	kJ/m ²	
23°C	81	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	85.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	45.0	°C	ISO 75-2/A
Brittleness Temperature	-100	°C	ISO 974
Vicat Softening Temperature			
--	195	°C	ISO 306/A50
--	100	°C	ISO 306/B50
Melting Temperature ¹	211	°C	ISO 11357-3
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	600	V	IEC 60112
Fill Analysis	Nominal Value	Unit	
Melt Density	1.04	g/cm ³	
Specific Heat Capacity of Melt	2160	J/kg/°C	
Thermal Conductivity of Melt	0.14	W/m/K	
Effective Thermal Diffusivity	0.0544	cSt	
NOTE			

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