

Hytrel® 5555HS

THERMOPLASTIC POLYESTER ELASTOMER

DuPont Performance Polymers

Message:

55 Shore D High Performance Polyester Elastomer with Heat Ageing Protection

General Information			
UL YellowCard	E41938-234581		
Additive	Heat Stabilizer		
	UV Stabilizer		
Features	Heat Stabilized		
Uses	Film		
	Profiles		
	Sheet		
Agency Ratings	UL Unspecified Rating		
Forms	Pellets		
Processing Method	Casting		
	Extrusion		
	Film Extrusion		
	Injection Molding		
	Profile Extrusion		
	Sheet Extrusion		
	Thermoforming		
Multi-Point Data	Creep Modulus vs. Time (ISO 11403-1)		
	Isochronous Stress vs. Strain (ISO 11403-1)		
	Isothermal Stress vs. Strain (TPE) (ISO 11403-1)		
	Shear Modulus vs. Temperature (ISO 11403-1)		
	Shear Stress vs. Shear Rate (ISO 11403-1)		
	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/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/2.16 kg)	8.5	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°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			
24 hr	0.70	%	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	52		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	190	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Yield	15.0	MPa	
Break	35.0	MPa	
5.0% Strain	6.90	MPa	
10% Strain	11.1	MPa	
50% Strain	14.7	MPa	
100% Strain	16.0	MPa	
Tensile Strain			ISO 527-2
Yield	36	%	
Break	> 300	%	
Nominal Tensile Strain at Break	640	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	140	MPa	
1000 hr	100	MPa	
Flexural Modulus	195	MPa	ISO 178
Abrasion Resistance	120	mm ³	ISO 4649
Effective Thermal Diffusivity	0.0544	cSt	
Elastomers	Nominal Value	Unit	Test Method
Tear Strength			ISO 34-1
Across Flow	120	kN/m	
Flow	130	kN/m	
Compression Set (70°C)	60	%	ISO 815
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	No Break		ISO 179/1eU
Tensile Impact Strength (23°C)	300	kJ/m ²	ISO 8256/1
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	78.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	51.0	°C	ISO 75-2/A

Brittleness Temperature	-80.0	°C	ISO 974
Vicat Softening Temperature			
--	177	°C	ISO 306/A50
--	75.0	°C	ISO 306/B50
Melting Temperature ¹	201	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	1.8E-4	cm/cm/°C	
Transverse	1.8E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
1.50 mm	HB		
3.00 mm	HB		
Oxygen Index	20	%	ISO 4589-2
NOTE			
1.	10°C/min		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

