

Technical Data

Product Description

44 Shore D, Lubricated, High Viscosity Polyester Elastomer Developed for Blow Molding

General

Material Status	• Commercial: Active
Literature ¹	• Processing - Extrusion (English) • Processing - Injection Molding (English) • Typical Processing for DuPont Engineering Polymers (English)
Search for UL Yellow Card	• DuPont Performance Polymers • Hytrel®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	• Heat Stabilizer • Lubricant • UV Stabilizer
Features	• Heat Stabilized • High Viscosity • Lubricated • UV Stabilized
Uses	• Blow Molding Applications
RoHS Compliance	• Contact Manufacturer
Forms	• Pellets
Processing Method	• Blow Molding • Injection Molding • Thermoforming
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1) • Isothermal Stress vs. Strain (TPE) (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1) • Tensile Modulus vs. Temperature, Dynamic (ISO 11403-1)
Part Marking Code (ISO 11469)	• TPC-ET
Resin ID (ISO 1043)	• TPC-ET

Physical	Nominal Value Unit	Test Method
Density	1.15 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	2.1 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (230°C/2.16 kg)	1.90 cm ³ /10min	ISO 1133
Molding Shrinkage		ISO 294-4
Across Flow	1.4 %	
Flow	1.6 %	
Water Absorption		ISO 62
24 hr, 23°C	0.70 %	
Saturation, 23°C, 2.00 mm	0.70 %	
Equilibrium, 23°C, 2.00 mm, 50% RH	0.20 %	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	55.0 MPa	ISO 527-2
Tensile Stress		ISO 527-2
Break	32.0 MPa	
5.0% Strain	4.50 MPa	
10% Strain	6.70 MPa	
50% Strain	11.8 MPa	
100% Strain	14.0 MPa	
300% Strain	23.0 MPa	
Tensile Strain (Break)	> 300 %	ISO 527-2
Nominal Tensile Strain at Break	510 %	ISO 527-2
Flexural Modulus	87.0 MPa	ISO 178

Elastomers	Nominal Value Unit	Test Method
Tear Strength		ISO 34-1
Across Flow	120 kN/m	
Flow	110 kN/m	



Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-40°C	No Break	
-30°C	No Break	
23°C	No Break	
Charpy Unnotched Impact Strength		ISO 179/1eU
-30°C	No Break	
23°C	No Break	
Notched Izod Impact Strength		ISO 180/1A
-40°C	No Break	
23°C	No Break	
Hardness	Nominal Value Unit	Test Method
Shore Hardness		ISO 7619
Shore D	44	
Shore D, 15 sec	40	
Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	58.0 °C	ISO 75-2/B
1.8 MPa, Unannealed	44.0 °C	ISO 75-2/A
Brittleness Temperature	-100 °C	ISO 974
Glass Transition Temperature ³	-45.0 °C	ISO 11357-2
Melting Temperature ³	194 °C	ISO 11357-3
CLTE		ISO 11359-2
Flow	1.8E-4 cm/cm/°C	
Flow : -40 to 23°C	2.1E-4 cm/cm/°C	
Transverse	1.7E-4 cm/cm/°C	
Transverse : -40 to 23°C	2.0E-4 cm/cm/°C	
Effective Thermal Diffusivity	5.44E-8 m ² /s	
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	> 1.0E+15 ohms	IEC 62631-3-2
Volume Resistivity	4.0E+11 ohms·m	IEC 62631-3-1
Electric Strength	19 kV/mm	IEC 60243-1
Relative Permittivity		IEC 62631-2-1
1 MHz	4.60	
100 Hz	4.90	
Dissipation Factor		IEC 62631-2-1
100 Hz	5.0E-3	
1 MHz	0.028	
Comparative Tracking Index	600 V	IEC 60112
Flammability	Nominal Value Unit	Test Method
Burning Rate ⁴ (1.00 mm)	< 100 mm/min	ISO 3795
Oxygen Index	21 %	ISO 4589-2
FMVSS Flammability	B	FMVSS 302
Fill Analysis	Nominal Value Unit	
Melt Density	0.960 g/cm ³	



Injection	Nominal Value Unit
Drying Temperature	100 °C
Drying Time - Desiccant Dryer	2.0 to 4.0 hr
Suggested Max Moisture	0.080 %
Processing (Melt) Temp	220 to 240 °C
Melt Temperature, Optimum	225 °C
Mold Temperature	40 to 50 °C
Mold Temperature, Optimum	45 °C
Drying Recommended	yes

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ 10°C/min

⁴ FMVSS 302



Where to Buy

Supplier

DuPont Performance Polymers
Wilmington, DE USA
Telephone: 302-999-4592
Web: <http://plastics.dupont.com/>

Distributor

CCC Plastics
Telephone: 800-465-6917
Web: <http://www.cccplastics.com/>
Availability: Canada

Distrupol Ltd

Distrupol Ltd is a Pan European distribution company. Contact Distrupol Ltd for availability of individual products by country.
Telephone: 08452003040
Web: <http://www.distrupol.com/>
Availability: Denmark, Finland, Ireland, Norway, Sweden, United Kingdom

PolyOne Distribution

PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.
Telephone: 800-894-4266
Web: <http://polyonedistribution.com/>
Availability: Global

Reseller

A Reseller is not a distributor authorized by the Supplier.

Shanghai Jingyang New Material Technology Co., Ltd
Telephone: +86-021-80394788; Mr. Zhou: +86-15821998203
Web: <http://www.basfpps.com/>
Availability: Asia Pacific, China

