

PELPRENE™ E-450B
TOYOBO MC Corporation - Thermoplastic Copolyester Elastomer

General Information			
Product Description			
General Grade			
General			
Material Status	• Commercial: Active		
Features	• High Hardness		
Uses	• Automotive Applications • Automotive Interior Parts	• General Purpose • Industrial Applications	• Sporting Goods
Forms	• Pellets		
Processing Method	• Injection Molding		
Part Marking Code (ISO 11469)	• >TPC-ET<		
Revision Date	• 8/27/2025		
ASTM & ISO Properties			
Physical	Nominal Value	Unit	Test Method
Density	1.27	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (235°C/2.16 kg)	12	g/10 min	ISO 1133
Molding Shrinkage ¹			Internal Method
Flow : 2.00 mm	1.4	%	
Across Flow : 2.00 mm	1.5	%	
Water Absorption ² (Equilibrium, 23°C, 50% RH)	0.18	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1190	MPa	ISO 527
Tensile Stress			
Yield	37.8	MPa	ISO 37
Break	52.1	MPa	ISO 37
50% Strain	28.0	MPa	ISO 527
Tensile Elongation (Break)	510	%	ISO 37
Flexural Modulus	1250	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	12	kJ/m²	ISO 179
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 48-4
Shore A, 15 sec	99		
Shore D, 15 sec	70		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2
0.45 MPa, Unannealed	101	°C	
Brittleness Temperature	< -65.0	°C	ISO 974
Melting Temperature	223	°C	Internal Method
CLTE			ISO 11359-2
Flow	7.9E-5	cm/cm/°C	
Transverse	9.8E-5	cm/cm/°C	



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Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	2.2E+16	ohms	IEC 62631-3-2
Volume Resistivity	4.2E+12	ohms·m	IEC 62631-3-1

Processing Information		
Injection		Unit
Drying Temperature	100 to 120	°C
Drying Time	> 4.0	hr
Rear Temperature	220 to 240	°C
Middle Temperature	230 to 250	°C
Front Temperature	230 to 250	°C
Nozzle Temperature	230 to 250	°C
Mold Temperature	20 to 40	°C

Notes

- ¹ 100×100×2mmt, film gate
- ² 192hr

