

PELPRENE™ EN-5000

TOYOBO MC Corporation - Thermoplastic Copolyester Elastomer

General Information

Product Description

Special Grade

General

Material Status	• Commercial: Active		
Features	• Abrasion Resistant • Chemical Resistant	• Gas Barrier • Good Dimensional Stability	• 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	1.23	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	20	g/10 min	ISO 1133
Molding Shrinkage ¹			Internal Method
Flow : 2.00 mm	0.70	%	
Across Flow : 2.00 mm	1.6	%	
Water Absorption ² (Equilibrium, 23°C, 50% RH)	0.23	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	445	MPa	ISO 527
Tensile Stress			
Yield	27.4	MPa	ISO 37
Break	41.1	MPa	ISO 37
50% Strain	21.7	MPa	ISO 527
Tensile Elongation (Break)	540	%	ISO 37
Flexural Modulus	462	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	No Break		ISO 179
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 48-4
Shore A, 15 sec	99		
Shore D, 15 sec	66		



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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	64.0	°C	ISO 75-2
Brittleness Temperature	< -65.0	°C	ISO 974
Melting Temperature	233	°C	Internal Method
CLTE			ISO 11359-2
Flow	1.2E-5	cm/cm/°C	
Transverse	6.8E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	3.1E+16	ohms	IEC 62631-3-2
Volume Resistivity	1.3E+12	ohms·m	IEC 62631-3-1

Processing Information		
Injection		Unit
Drying Temperature	100 to 120	°C
Drying Time	4.0	hr
Rear Temperature	230 to 250	°C
Middle Temperature	250 to 270	°C
Front Temperature	250 to 270	°C
Mold Temperature	20 to 40	°C

Notes

- ¹ 100×100×2mmt, film gate
- ² 192hr

