

VYLOPET™ EMC-143

TOYOBO MC Corporation - Polyethylene Terephthalate

General Information

Product Description

GF Reinforced, Flame Retardant

General

Material Status	• Commercial: Active
Filler / Reinforcement	• Glass Fiber, 43% Filler by Weight
Features	• Flame Retardant • High Rigidity
Uses	• Automotive Applications • General Purpose • Electrical/Electronic Applications • Industrial Applications
Forms	• Pellets
Processing Method	• Injection Molding
Part Marking Code (ISO 11469)	• >PET-GF43FR(17)<
Revision Date	• 9/10/2025

ASTM & ISO Properties

Physical	Nominal Value	Unit	Test Method
Density	1.83	g/cm ³	ISO 1183
Molding Shrinkage ¹			Internal Method
Flow : 2.00 mm	0.30	%	
Across Flow : 2.00 mm	1.0	%	
Water Absorption (24 hr, 23°C)	0.050	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	164	MPa	ISO 527
Tensile Elongation (Break)	1.5	%	ISO 527
Flexural Modulus	14400	MPa	ISO 178
Flexural Strength	236	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	13	kJ/m ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	245	°C	ISO 75-2/B
1.8 MPa, Unannealed	230	°C	ISO 75-2/A
CLTE			ISO 11359-2
Flow	1.0E-5	cm/cm/°C	
Transverse	7.0E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms·m	IEC 62631-3-1

Processing Information

Injection	Unit
Middle Temperature	260 to 280 °C
Nozzle Temperature	260 to 280 °C
Mold Temperature	120 to 140 °C

