



Maxxam™ PE GF/30 UV Black T70

High Density Polyethylene

Key Characteristics

Product Description

PolyOne's Maxxam™ family of polypropylene- and polyethylene-based products covers a wide range of applications, markets and performance requirements. Standard grades are compounded with calcium carbonate, glass and talc to provide a desired balance of properties including stiffness, durability, impact resistance and heat resistance. Custom grades are available with features such as UV stabilizers, heat stabilizers, custom color, high impact, etc.

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East	• Europe	
Filler / Reinforcement	• Glass Fiber		
Features	• General Purpose		
Uses	• Automotive Applications • Construction Applications	• Consumer Applications • General Purpose	• Industrial Applications
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	1.17 g/cm ³	1.17 g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.90 to 1.1 %	0.90 to 1.1 %	
Flow	0.20 to 0.40 %	0.20 to 0.40 %	
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus			ISO 527-2
--	711000 psi	4900 MPa	
176°F (80°C)	145000 psi	1000 MPa	
Tensile Stress			ISO 527-2
Break	5510 psi	38.0 MPa	
Break, 176°F (80°C)	2180 psi	15.0 MPa	
Tensile Strain			ISO 527-2
Break	1.4 %	1.4 %	
Break, 176°F (80°C)	20 %	20 %	
Flexural Modulus	653000 psi	4500 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact Strength	2.4 ft-lb/in ²	5.0 kJ/m ²	ISO 180
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Annealed	248 °F	120 °C	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 hr	2.0 hr
Processing (Melt) Temp	464 to 536 °F	240 to 280 °C

Injection	Typical Value (English)	Typical Value (SI)
Mold Temperature	122 to 158 °F	50 to 70 °C
Injection Rate	Slow-Fast	Slow-Fast
Injection Notes		
pre drying is not mandatory		

Notes

¹ Typical values are not to be construed as specifications.