

T50-500-171 Polyethylene Copolymer

T50-500-171 is a high density polyethylene copolymer with a narrow molecular weight distribution. It is intended for injection molding applications where a good balance of processability and end-use properties are required. This material meets the Food and Drug Administration requirements of 21CFR 177.1520.

Typical Properties¹

	Values		ASTM Method
	English Units	SI Units	
Resin			
Density	—	0.953 g/cc	D4883
Melt Index 190 C/2.16 kg	—	6.5 g/10 min	D1238
Compression Molded Samples			
Tensile Strength (2 in/min)			D638
@ Yield	4,000 psi	27.4 MPa	
@ Break	2,900 psi	20.0 MPa	
Elongation (2 in/min)			D638
@ Yield	9.5 %	9.5 %	
@ Break	1,080 %	1,080 %	
Flexural Modulus			D790A
2% Secant Method	143,000 psi	988 Mpa	
Tangent Method	185,800 psi	1281 Mpa	
Notched Izod Impact Strength	0.8 ft-lbf/in	4.4 kJ/m ²	D256
Hardness			D2240
Shore D	63	63	
Vicat Softening Point	257 F	125 C	D1525
Brittleness Temperature	<-103 F	<-75 C	D746
Heat Deflection Temperature			D648
@ 66 psi (455 kPa)	170 F	77 C	
Environmental Stress Crack Resistance			D1693
Condition B, 100% Igepal, F50 (hrs.)	5	5	
Oxidation Induction Time @ 210 °C			D3895
@210 C	>9 min	>9 min	

¹ Typical properties will vary and are not to be used for specification purposes.