

# SABIC® FI1157

SABIC® HDPE FI1157 is a High Density Polyethylene copolymer grade typically used for blown film applications. It has high molecular weight, broad molecular weight distribution and high density to produce film with low gels level, high stiffness, high melt strength, high impact resistance and with narrow gauge tolerances at low film thickness. SABIC® HDPE FI1157 can be processed at high throughput with good bubble stability. The product mentioned herein is in particular not tested and therefore not validated for use in pharmaceutical/ medical applications  
Information provided by SABIC

Physical Properties	Metric	English	Comments
Density	0.957 g/cc	0.0346 lb/in³	ASTM D1505
Melt Flow	0.35 g/10 min @Load 5.00 kg, Temperature 190 °C	0.35 g/10 min @Load 11.0 lb, Temperature 374 °F	ISO 1133
	11 g/10 min @Load 21.6 kg, Temperature 190 °C	11 g/10 min @Load 47.6 lb, Temperature 374 °F	ISO 1133
Mechanical Properties	Metric	English	Comments
Hardness, Shore D	62	62	ISO 868
Film Elongation at Break, MD	400 %	400 %	Properties are based on 20 µm film produced at a BUR of 4 using 100% FI1157.; ISO 527-3
Film Elongation at Break, TD	450 %	450 %	Properties are based on 20 µm film produced at a BUR of 4 using 100% FI1157.; ISO 527-3
Tear Strength, Total	0.200 N	0.0450 lb (f)	Elmendorf, MD; ISO 6383-2
	0.450 N	0.101 lb (f)	Elmendorf, TD; ISO 6383-2
Dart Drop Test	240 g	0.529 lb	ASTM D1709
Film Tensile Strength at Break, MD	50.0 MPa	7250 psi	Properties are based on 20 µm film produced at a BUR of 4 using 100% FI1157.; ISO 527-3
Film Tensile Strength at Break, TD	45.0 MPa	6530 psi	Properties are based on 20 µm film produced at a BUR of 4 using 100% FI1157.; ISO 527-3
Thermal Properties	Metric	English	Comments
Vicat Softening Point	75.0 °C	167 °F	at 50 N (VST/B); ISO 306/B
Brittleness Temperature	<= -80.0 °C	<= -112 °F	ASTM D746