

SABIC® HDPE F00851

HIGH DENSITY POLYETHYLENE

DESCRIPTION

SABIC® HDPE F00851 is a high molecular weight High Density Polyethylene copolymer grade typically used for blown film applications. It typically offers a good balance between toughness and stiffness, good impact properties with low gel level.

This product is not intended for and must not be used in any pharmaceutical/medical applications.

TYPICAL APPLICATIONS

SABIC® HDPE F00851 is typically used for blown film extrusion. Typical applications are heavy duty bags, grocery sacks, shopping bags, refuse bags, thin film for bag on roll and wrapping film. The grade can also be blended with LLDPE and LDPE and can be used in co-extrusion process.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate (MFR)			
at 190 °C and 5 kg	0.3	g/10 min	ISO 1133
at 190 °C and 21.6 kg	9	g/10 min	ISO 1133
Density	952	kg/m ³	ASTM D1505
MECHANICAL PROPERTIES			
Hardness Shore D	62	-	ISO 868
FILM PROPERTIES			
Tensile Properties⁽¹⁾			
stress at break, MD	50	MPa	ISO 527-3
stress at break, TD	45	MPa	ISO 527-3
strain at break, MD	400	%	ISO 527-3
strain at break, TD	450	%	ISO 527-3
Dart Impact Strength			
F50	240	g	ASTM D1709
Elmendorf Tear Strength			
MD	200	mN	ISO 6383-2
TD	450	mN	ISO 6383-2
THERMAL PROPERTIES			
Brittleness Temperature	<-80	°C	ASTM D746
Vicat Softening Temperature			
at 50 N (VST/B)	75	°C	ISO 306/B

(1) Properties have been measured at 20 µm blown film with a BUR of 4 using 100% F00851