

SABIC® HDPE F00851

High Density (HMW) Polyethylene

Saudi Basic Industries Corporation (SABIC)

Message:

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

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.

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

General Information			
Features	Low speed solidification crystal point		
	High molecular weight		
	High density		
	Copolymer		
	Impact resistance, good		
Uses	Blown Film		
	Films		
	Bags		
	Mixing		
	Heavy packing bag		
Processing Method	Blow film		
	Co-extrusion molding		
	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.952	g/cm ³	ISO 1183/A
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/21.6 kg	9.0	g/10 min	ISO 1133
190°C/5.0 kg	0.30	g/10 min	ISO 1133
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	62		ISO 868
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	20	µm	
Tensile Stress			ISO 527-3
MD: Yield, 20 µm, blown film	50.0	MPa	ISO 527-3
TD: Yield, 20 µm, blown film	45.0	MPa	ISO 527-3
Tensile Elongation			ISO 527-3
MD: Broken, 20 µm, blown film	400	%	ISO 527-3

TD: Broken, 20 μm, blown film	450	%	ISO 527-3
Dart Drop Impact ¹ (20 μm, Blown Film)	240	g	ASTM D1709
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -80.0	°C	ASTM D746
Vicat Softening Temperature	75.0	°C	ISO 306/B
Additional Information	Nominal Value	Unit	Test Method
Tear Strength ²			ISO 6383-2
MD : 20.0 μm	200.0	kN/m	ISO 6383-2
TD : 20.0 μm	450.0	kN/m	ISO 6383-2
Film properties have been measured at 20 μm blown film with a BUR = 4.			
Extrusion	Nominal Value	Unit	
Melt Temperature	200 - 225	°C	
NOTE			
1.	F50		
2.	Blown Film		

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