

# SABIC® HDPE FI0644

High Density (HMW) Polyethylene

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® HDPE FI0644 is a high molecular high density polyethylene copolymer grade specifically desinged for blown film applications. SABIC® HDPE FI0644 features are outstanding toughness and impact properties with very low gel level.

Application

SABIC® HDPE FI0644 is recommended for blown film extrusion. It can be used for producing heavy duty bags, grocery sacks, shopping bags, carier- and T-shirt bags, refuse bags, liners for multi-wall sacks and liners for frozen food meat. The grade is suitable to blend with LLDPE and LDPE and can be used in co-extrusion process.

The product mentioned herein is in particular not tested and therefore not validated for use in pharmaceutical/medical applications.

General Information			
Features	Broad Seal Range		
	Ultra high toughness		
	Low speed solidification crystal point		
	Rigid, good		
	High molecular weight		
	High density		
	Copolymer		
	Impact resistance, high		
	Impact resistance, good		
	Wide molecular weight distribution		
	Good stripping		
	Good toughness		
Uses	Films		
	Lining		
	Bags		
	Mixing		
	Food packaging		
	Heavy packing bag		
Processing Method	Blow film		
	Co-extrusion molding		
Physical	Nominal Value	Unit	Test Method
Density	0.944	g/cm³	ISO 1183/A
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/21.6 kg	5.4	g/10 min	ISO 1133
190°C/5.0 kg	0.18	g/10 min	ISO 1133
Hardness	Nominal Value	Unit	Test Method

Durometer Hardness (Shore D)	60		ISO 868
Films	Nominal Value	Unit	Test Method
Film Thickness - Tested	20	μm	
Tensile Stress			ISO 527-3
MD: Yield, 20 μm	50.0	MPa	ISO 527-3
TD: Yield, 20 μm	45.0	MPa	ISO 527-3
Tensile Elongation			ISO 527-3
MD: Break, 20 μm	400	%	ISO 527-3
TD: Break, 20 μm	450	%	ISO 527-3
Dart Drop Impact (20 μm)	260	g	ASTM D1709
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -80.0	°C	ASTM D746
Vicat Softening Temperature	73.0	°C	ISO 306/B
Additional Information	Nominal Value	Unit	Test Method
Tear Strength			ISO 6383-2
MD : 20.0 μm	200.0	kN/m	ISO 6383-2
TD : 20.0 μm	400.0	kN/m	ISO 6383-2
Extrusion	Nominal Value	Unit	
Melt Temperature	200 - 225	°C	

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#### Recommended distributors for this material

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