

# SABIC® HDPE F0863

## HIGH DENSITY POLYETHYLENE

### DESCRIPTION

SABIC® HDPE F0863 resin is a homopolymer with a very high density manufactured by gas phase technology. The grade offers high stiffness, high temperature resistance, low water vapor transmission and a very low gel level. Because of the linear character it is advisable to use the material in combination with extrusion coating LDPE grades like SABIC® LDPE 2005EC in order to improve extrusion coating process ability (motor load and Neck In).

SABIC® HDPE F0863 is typically used for food packaging, release paper and photographic paper.

Film properties have been measured at cast film of 25 µm.

Water vapor permeability at 38 °C and 100 % RH per 24 h.

Oxygen permeability at 23 °C and 0 % RH per 24 h.

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

### TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>POLYMER PROPERTIES</b>			
<b>Melt Flow Rate (MFR)</b>			
at 190 °C and 2.16 kg	8	dg/min	ISO 1133
<b>Density</b>	964	kg/m³	ASTM D1505
<b>PROCESSING PROPERTIES</b>			
<b>Neck In <sup>(1)</sup></b>	168	mm	SABIC method
<b>Minimal coating weight (DD) <sup>(2)</sup></b>	2.0	g/m²	SABIC method
<b>FILM PROPERTIES</b>			
<b>Tensile test film</b>			
Yield stress TD	24	MPa	ISO 527-3
Yield stress MD	26	MPa	ISO 527-3
Stress at break TD	18	MPa	ISO 527-3
Stress at break MD	22	MPa	ISO 527-3
Strain at break TD	800	%	ISO 527-3
Strain at break MD	700	%	ISO 527-3
Modulus of elasticity TD	580	MPa	ISO 527-3
Modulus of elasticity MD	580	MPa	ISO 527-3
<b>Permeability</b>			
water vapour (H <sub>2</sub> O)	4.0	g/m²day	SABIC method
oxygen (O <sub>2</sub> )	0.1	ml/m²day	SABIC method
<b>THERMAL PROPERTIES</b>			
<b>DSC test</b>			
melting point	134	°C	DIN 53765
enthalpy change	224	J/g	DIN 53765

(1) Measured on pilot line at 200 m/min, 300 °C, 10 g/m², airgap 300 mm

(2) Measured on pilot line at 400 m/min, 300 °C, airgap 300 mm