# SABIC® HDPE F0863

## High Density Polyethylene

## Saudi Basic Industries Corporation (SABIC)

#### Message:

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 vapour 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 processability (motorload and Neck In). Application

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

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

Adiditive   Anioxidant     Feilures   Anioxidant     Igh Density   High Density     High Hear Resistance   High Hear Resistance     High Hear Resistance   High Density     High Density   High Hear Resistance     High Density   High Density     Low Gel   Low Gel     User Resistance   High Density     Reside Applications   Compounding     Kondonding   High Density     Reside Applications   High Density     Reside Applications   High Density     Proteinsing Method   Compounding     Environ Contig   High Density     Proteinsing Method   Noman Contig     Proteinsing Method   Noman Co	General Information			
High Density High Heat Resistance High Stiffness Homopolymer Low GelUsesCoating Applications Compounding Food Packaging Masterbatch Research Texusion CoatingProcessing MethodCompounding Food Packaging Masterbatch Research Texusion CoatingProcessing MethodCompounding Strusion CoatingProcessing MethodOomounding Strusion CoatingProcessing MethodOomounding Strusion CoatingProcessing MethodOomounding Strusion CoatingProcessing MethodNominal ValueDensity0.964Density0.964Meth Mass-Flow Rate (MFR) (190°C/2:16) Kg)80Morinal ValueUnitMeth Mass-Flow Rate (MFR) (190°C/2:16) Kg)30Migh Staffness9/10minTestie Konstline101Migh Staffness105173Migh Staffness105174Migh	Additive	Antioxidant		
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Homopolymer Low Gel     Use   Cating Applications Compounding Food Packaging Materbatch Release Paper     Processing Method   Compounding Extrusion Coating     Physical   Nominal Value   Vint     Prosessing Method   Soft Mainer     Physical   Nominal Value   Vint     Person   964   Graft Mainer     Pinite   Nominal Value   Vint     Films   Nominal Value   Vint     Films   Nominal Value   Vint     Film Thickness - Tested   So   Mainer     Testie Modulus   So   Mainer     Film Thickness - Tested   So   Mainer     MD: 25 µm, Cast Film   So   Mainer     MD: 25 µm, Cast Film   So   Mainer     MD: Yield, 25 µm, Cast Film   E6.0   MPa     Testife Stress   So   Mainer     MD: Yield, 25 µm, Cast Film   So   Mainer     Testifed, 25 µm, Cast Film   So   Mainer		High Heat Resistance		
Low Gel     Uses   Coating Applications     Compounding     Food Packaging     Masterbatch     Release Paper     Processing Method     Compounding     Etrusion Coating     Processing Method     Compounding     Etrusion Coating     Processing Method     Density   Ominal Value     Mominal Value   Mominal Compounding     Etrusion Coating   So 1183     Pinema   Nominal Value   Mominal Coating     Methodss-Flow Rate (MFR) (190°C/2.16)   So 1000   So 1133     Films   Nominal Value   Mominal Coating   So 1133     Films   So 0000   Material Coating   So 1133     MD: 25 µm, Cast Film   So 0000   MPa   Coating     To: Sign, Cast Film   So 0000   MPa   Coating     To: Sidu, 25 µm, Cast Film   So 0000 <td< td=""><td></td><td>High Stiffness</td><td></td><td></td></td<>		High Stiffness		
Uss   Coating Applications     Compounding     Food Packaging     Masterbatch     Masterbatch     Release Paper     Processing Method     Denoisy     Ominal Value     Masterbatch     growth Asserblow Rate (MFR) (190°C/2.16)     kg     Nominal Value     Mominal Value     Masterbatch     growth Asserblow Rate (MFR) (190°C/2.16)     kg     Nominal Value     Masterbatch     growth Asserblow Rate (MFR) (190°C/2.16)     Rominal Value     Mominal Value     Mominal Value     Mominal Value     Masterbatch     growth Asserblow Rate (MFR) (190°C/2.16)     Rominal Value     Mominal Value <td< td=""><td></td><td>Homopolymer</td><td></td><td></td></td<>		Homopolymer		
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Release Paper     Processing Method   Compounding Extrusion Coating     Physical   Nominal Value   Unit   Test Method     Density   0.964   g/cm <sup>3</sup> ISO 1183     Methods-Filow Rate (MFR) (190°C/2.16) g/s   8.0   g/10 min   ISO 1133     Films   Nominal Value   Unit   Test Method     Films   So 50.0   ISO 1133   ISO 1133     Films   So 100   ISO 1133   ISO 1133     Films   So 50.0   ISO 113   ISO 1133     Testiel Modulus   ISO 527.3   ISO 527.3   ISO 527.3     MD: 25 µm, Cast Film   So 0   MPa   ISO 527.3     Testiel Stress   ISO 527.3   ISO 527.3   ISO 527.3     MD: Yield, 25 µm, Cast Film   So 0.0   MPa   ISO 527.3     Testiel Stress   ISO 527.3   ISO 527.3   ISO 527.3     Testiel Stress   So 0.0   MPa   ISO 527.3 </td <td>Food Packaging</td> <td></td> <td></td>		Food Packaging		
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Density     0.964     g/cm³     ISO 1183       Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)     8.0     g/10 min     ISO 1133       Films     Nominal Value     Unit     Test Method       Film Thickness - Tested     25     µm     ISO 527-3       MD: 25 µm, Cast Film     580     MPa     ISO 527-3       TD: 25 µm, Cast Film     580     MPa     ISO 527-3       MD: Yield, 25 µm, Cast Film     26.0     MPa     ISO 527-3       MD: Yield, 25 µm, Cast Film     26.0     MPa     ISO 527-3       MD: Yield, 25 µm, Cast Film     26.0     MPa     ISO 527-3       MD: Yield, 25 µm, Cast Film     26.0     MPa     ISO 527-3		Extrusion Coating		
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FilmsNominal ValueUnitTest MethodFilm Thickness - Tested25μmISO 527-3Tensile Modulus580MPaISO 527-3MD : 25 μm, Cast Film580MPaISO 527-3Tensile Stress580MPaISO 527-3MD : Yield, 25 μm, Cast Film26.0MPaISO 527-3MD : Yield, 25 μm, Cast Film24.0MPaISO 527-3			<i>40</i>	
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Tensile Modulus   ISO 527-3     MD : 25 μm, Cast Film   580   MPa     TD : 25 μm, Cast Film   580   MPa     Tensile Stress   ISO 527-3     MD : Yield, 25 μm, Cast Film   26.0   MPa     TD : Yield, 25 μm, Cast Film   24.0   MPa			Unit	Test Method
MD: 25 μm, Cast Film     580     MPa       TD: 25 μm, Cast Film     580     MPa       Tensile Stress     ISO 527-3       MD: Yield, 25 μm, Cast Film     26.0     MPa       TD: Yield, 25 μm, Cast Film     24.0     MPa		25	μm	
TD: 25 μm, Cast Film 580 MPa   Tensile Stress ISO 527-3   MD: Yield, 25 μm, Cast Film 26.0 MPa   TD: Yield, 25 μm, Cast Film 24.0 MPa	Tensile Modulus			ISO 527-3
Tensile Stress     ISO 527-3       MD : Yield, 25 μm, Cast Film     26.0     MPa       TD : Yield, 25 μm, Cast Film     24.0     MPa	MD : 25 µm, Cast Film	580	MPa	
MD : Yield, 25 μm, Cast Film     26.0     MPa       TD : Yield, 25 μm, Cast Film     24.0     MPa	TD : 25 μm, Cast Film	580	MPa	
TD : Yield, 25 µm, Cast Film 24.0 MPa	Tensile Stress			ISO 527-3
	MD : Yield, 25 $\mu m$ , Cast Film	26.0	MPa	
MD : Break, 25 μm, Cast Film 22.0 MPa	TD : Yield, 25 µm, Cast Film	24.0	MPa	
	MD : Break, 25 µm, Cast Film	22.0	MPa	

TD : Break, 25 µm, Cast Film	18.0	MPa		
Tensile Elongation			ISO 527-3	
MD : Break, 25 µm, Cast Film	700	%		
TD : Break, 25 µm, Cast Film	800	%		
Oxygen Permeability (23°C, 25 µm, Cast				
Film)	0.100	cm³/m²/24 hr	Internal Method	
Water Vapor Transmission Rate (38°C,				
100% RH, 25 µm, Cast Film)	4.0	g/m²/24 hr	Internal Method	
Thermal	Nominal Value	Unit	Test Method	
Vicat Softening Temperature	130	°C	ISO 306/A	
Melting Temperature (DSC)	134	°C	DIN 53765	
Enthalpy Change	224	J/g	DIN 53765	
Minimum Coating Weight <sup>1</sup>	2.0	g/m²	Internal Method	
Neck-in <sup>2</sup>	168.0	mm	Internal Method	
NOTE				
	Measured on pilot line at 400			
1.	m/min, 300°C, airgap 300 mm			
	Measured on pilot line at 200			
	m/min, 300°C, 10 g/m², airgap 300			
2.	mm			

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