

# SABIC® HDPE B4406

High Density Polyethylene

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® HDPE B4406 is a high-density polyethylene product. It can be processed by blow molding and is available in Europe. SABIC® The application areas of HDPE B4406 include container and food contact applications.

Features include:

High resistance to environmental stress fracture (ESCR)

Good processability

Good stiffness

Good toughness

General Information			
Features	Rigid, good		
	High ESCR (Stress Cracking Resistance)		
	Workability, good		
	Good toughness		
	Medium wide molecular weight distribution		
Uses	Container		
Agency Ratings	EEC 2002/72/EC		
	FDA 21 CFR 177.1520		
Forms	Particle		
Processing Method	Blow molding		
Physical	Nominal Value	Unit	Test Method
Density	0.944	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.10	g/10 min	ISO 1133
190°C/21.6 kg	6.0	g/10 min	ISO 1133
190°C/5.0 kg	0.20	g/10 min	ISO 1133
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 15 sec, Compression Molded)	59		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (2.00 mm, Compression Molded)	750	MPa	ISO 527-2/1BA/1
Tensile Stress			ISO 527-2/1BA/50
Yield, 2.00mm, molded	21.0	MPa	ISO 527-2/1BA/50
Fracture, 2.00mm, molded	33.0	MPa	ISO 527-2/1BA/50
Tensile Strain (Break, 2.00 mm, Compression Molded)	1000	%	ISO 527-2/1BA/50
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact			ISO 180/1A
-30°C	25	kJ/m <sup>2</sup>	ISO 180/1A
23°C	28	kJ/m <sup>2</sup>	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	64.0	°C	ISO 75-2/B
Vicat Softening Temperature	124	°C	ISO 306/A50
Additional Information			

Strain at Break, ISO 527, Compression Molded, Type 1BA, 50mm/min, 2mm: >1000%Melt Flow Rate, ISO 1133, 190°C/2.16 kg: <0.1 g/10 minESCR, SABIC Method, Compression Molded, Determined in Rhodacal-DS10 at 75°C, 3 N/mm<sup>2</sup>, thickness 1mm: 200hrMelting Point, DIN 53765, Tmelt(top) at 5°C/min: 129°CEnthalpy Change, DIN 53765: 180J/g

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