

SABIC® HDPE B5411

High Density Polyethylene

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® HDPE B5411 is a material with a semi-high molecular mass, additionally thermal stabilised and typically used for blow moulding and sheet extrusion. This grade is combining stiffness, toughness with an high ESCR and is typically used for large bottles, cans, technical parts and toys. This product is not intended for and must not be used in any pharmaceutical/medical applications.

General Information	
Additive	Heat Stabilizer
Features	Good Stiffness
	Good Toughness
	Heat Stabilized
	High Density
	High ESCR (Stress Crack Resist.)
	Medium Molecular Weight
Uses	Automotive Applications
	Bottles
	Containers
	Engineering Parts
	Pallets
	Sheet
	Toys
Processing Method	Blow Molding
	Extrusion
	Sheet Extrusion

Physical	Nominal Value	Unit	Test Method
Density	0.954	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	< 0.10	g/10 min	
190°C/21.6 kg	11	g/10 min	
190°C/5.0 kg	0.40	g/10 min	
Environmental Stress-Cracking Resistance (10% Igepal CO-630, Compression Molded, F50)	55.0	hr	ASTM D1693B
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, Compression Molded)	61		ISO 868
Mechanical	Nominal Value	Unit	Test Method

Tensile Modulus (2.00 mm, Compression Molded)	1050	MPa	ISO 527-2/1BA/50
Tensile Stress			ISO 527-2/1BA/50
Yield, 2.00 mm, Compression Molded	26.0	MPa	
Break, 2.00 mm, Compression Molded	30.0	MPa	
Tensile Strain (Break, 2.00 mm, Compression Molded)	> 1000	%	ISO 527-2/1BA/50
Flexural Modulus (2.00 mm, Compression Molded)	1250	MPa	ISO 178
Flexural Stress (2.00 mm, Compression Molded)	27.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength			ISO 180/A
-30°C, Compression Molded	14	kJ/m ²	
23°C, Compression Molded	16	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	81.0	°C	ISO 75-2/B
Vicat Softening Temperature	127	°C	ISO 306/A
Melting Temperature	132	°C	ISO 11357-3
Enthalpy Change	205	J/g	ISO 11357-3

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Recommended distributors for this material

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