SABIC® HDPE B5429

High Density Polyethylene Copolymer

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® HDPE B5429 is a medium molecular weight high density polyethylene copolymer. It is typically used for blow moulding bottles of small sizes. SABIC® HDPE B5429 offers a very good combination of toughness, stress cracking resistance (ESCR), load bearing strength and processability characteristics.

Typical applications.

SABIC® HDPE B5429 is classified as a multipurpose blow moulding grade. It may be blow moulded into containers for household and industrial chemicals (e.g. detergents, bleach, fabric softeners, solvents, paints, etc.), automotive supplies, foodstuffs, toiletries and cosmetics. It is typically also used for other hollow thin-walled parts and profile extrusions.

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

General Information	
Features	Copolymer
	Good Processability
	Good Toughness
	High Density
	High ESCR (Stress Crack Resist.)
	Medium Molecular Weight
Uses	Automotive Applications
	Bottles
	Containers
	Industrial Applications
	Profiles
	Thin-walled Parts
Processing Method	Blow Molding
	Extrusion
	Profile Extrusion

Physical	Nominal Value	Unit	Test Method
Density	0.954	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.30	g/10 min	
190°C/21.6 kg	29	g/10 min	
190°C/5.0 kg	1.5	g/10 min	
Environmental Stress-Cracking Resistance (10% Igepal CO-630, Compression			
Molded, F50)	40.0	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	МРа	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	28.0	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	МРа	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength	Nominal Value	Unit	Test Method ISO 180/A
·	Nominal Value 5.0	Unit kJ/m²	
Notched Izod Impact Strength			
Notched Izod Impact Strength -30°C, Compression Molded	5.0	kJ/m²	
Notched Izod Impact Strength -30°C, Compression Molded 23°C, Compression Molded	5.0 12	kJ/m² kJ/m²	ISO 180/A
Notched Izod Impact Strength -30°C, Compression Molded 23°C, Compression Molded Thermal	5.0 12	kJ/m² kJ/m²	ISO 180/A
Notched Izod Impact Strength -30°C, Compression Molded 23°C, Compression Molded Thermal Deflection Temperature Under Load (0.45)	5.0 12 Nominal Value	kJ/m² kJ/m² Unit	ISO 180/A Test Method
Notched Izod Impact Strength -30°C, Compression Molded 23°C, Compression Molded Thermal Deflection Temperature Under Load (0.45 MPa, Unannealed)	5.0 12 Nominal Value 81.0	kJ/m² kJ/m² Unit	Test Method ASTM D648
Notched Izod Impact Strength -30°C, Compression Molded 23°C, Compression Molded Thermal Deflection Temperature Under Load (0.45 MPa, Unannealed) Vicat Softening Temperature	5.0 12 Nominal Value 81.0 127	kJ/m² kJ/m² Unit °C °C	Test Method ASTM D648 ASTM D1525 1
Notched Izod Impact Strength -30°C, Compression Molded 23°C, Compression Molded Thermal Deflection Temperature Under Load (0.45 MPa, Unannealed) Vicat Softening Temperature Melting Temperature	5.0 12 Nominal Value 81.0 127	kJ/m² kJ/m² Unit °C °C	Test Method ASTM D648 ASTM D1525 1 DIN 53765
Notched Izod Impact Strength -30°C, Compression Molded 23°C, Compression Molded Thermal Deflection Temperature Under Load (0.45 MPa, Unannealed) Vicat Softening Temperature Melting Temperature Enthalpy Change	5.0 12 Nominal Value 81.0 127 132 205	kJ/m² kJ/m² Unit °C °C °C J/g	Test Method ASTM D648 ASTM D1525 1 DIN 53765

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