

SABIC® HDPE PCG5421

High Density Polyethylene

Saudi Basic Industries Corporation (SABIC)

Message:

SABIC® HDPE grades for healthcare applications are produced under controlled conditions resulting in high product quality, consistency and a high level of purity.

SABIC® HDPE PCG5421 is specially designed for the blow moulding of healthcare packaging (bottles and cans). The product features a unique stiffness/ESCR balance combined with excellent process ability.

SABIC® HDPE PCG5421 complies with the relevant monographs of the European Pharmacopoeia (EP) and the United States Pharmacopoeia (USPVI).. The product mentioned herein may not be used for medical healthcare devices or materials intended for temporary or permanent implementation in the human body.

General Information			
Features	High purity		
	Rigidity, high		
	High ESCR (Stress Cracking Resistance)		
	Workability, good		
Uses	Packaging		
	Blow molding applications		
	Bottle		
	Medical/nursing supplies		
Agency Ratings	EP Unspecified Rating		
	USP Class VI		
Forms	Particle		
Processing Method	Blow molding		
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	0.16	g/10 min	ISO 1133
190°C/21.6 kg	20	g/10 min	ISO 1133
190°C/5.0 kg	0.89	g/10 min	ISO 1133
Environmental Stress-Cracking Resistance ¹ (75°C, 1.00 mm, Rhodacal-DS10)	16.0	hr	Internal method
Hardness	Nominal Value	Unit	Test Method
Durometer 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, 2.00mm, molded	26.0	MPa	ISO 527-2/1BA/50
Fracture, 2.00mm, molded	27.0	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/A
-30°C, molded	6.0	kJ/m ²	ISO 180/A
23°C, molded	14	kJ/m ²	ISO 180/A
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 (DSC)	132	°C	DIN 53765
Enthalpy Change	205	J/g	DIN 53765
NOTE			
1.	3 MPa		

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