SABIC® LDPE PCG22

Low Density Polyethylene

Saudi Basic Industries Corporation (SABIC)

Message:

Low density polyethylene for Healthcare
Description
SABIC® LDPE grades for healthcare applications are produced under controlled conditions resulting in high product quality, consistency and a high level of purity.
SABIC® LDPE PCG22 is an additive free grade, typically designed for healthcare packaging and can typically be converted by Injection Molding to produce caps and closures. It exhibits a high MFR for good flow properties.
Compliance to Regulations
SABIC® LDPE PCG22 complies with the relevant monographs of the European Pharmacopoeia. 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 Low density Good liquidity No additive		
Uses	Shield Shell Medical/nursing supplies Medical packaging		
Agency Ratings	EP Unspecified Rating		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	0.919	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	22	g/10 min	ISO 1133
190°C/5.0 kg	75	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR)			ISO 1133
190°C/2.16 kg	29.0	cm³/10min	ISO 1133
190°C/5.0 kg	98.0	cm³/10min	ISO 1133
Environmental Stress-Cracking Resistance (60°C, 3.00 mm, Rhodacal-DS10, Compression Molded)	3.00	hr	Internal method
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness [1] (Shore D, Compression Molded)	45		ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**

Tensile Modulus [2] (2.00 mm, Compression Molded)	175	MPa	ISO 527-2/1BA/50
Tensile Stress [3]			ISO 527-2/1BA/50
Yield, 2.00mm, molded	8.00	MPa	ISO 527-2/1BA/50
Fracture, 2.00mm, molded	7.00	MPa	ISO 527-2/1BA/50
Tensile Strain [4] (Break, 2.00 mm, Compression Molded)	400	%	ISO 527-2/1BA/50
Tensile Creep Modulus [5]			ISO 899-1
1 hr	80.0	MPa	ISO 899-1
1000 hr	45.0	MPa	ISO 899-1
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact [6]			ISO 180/A
-30°C, molded	5.0	kJ/m^2	ISO 180/A
23°C, molded	42	kJ/m^2	ISO 180/A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature [7] (0.45 MPa, Unannealed)	39.0	°C	ISO 75-2/B
Vicat Softening Temperature [8]	82.0	°C	ISO 306/A
Melting Temperature (DSC)	105	°C	DIN 53765
Enthalpy Change	104	J/g	DIN 53765

NOTE	
1.	Compression moulding conditions of test specimen (according to ISO 293) : moulding temp: 160 °C, cooling rate: 40 °C/minConditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours
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5.	Test specimen according to ISO 3167, thickness 4 mmDetermined at 23 °C, 3 MPa

6.	Compression moulding conditions of test specimen (according to ISO 293) : moulding temp: 160 °C, cooling rate: 40 °C/minConditioning of test specimen: temp. 23 °C, relative humidity 50 %, 24 hours
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