

SABIC® PP PCGH10

Polypropylene Homopolymer

Saudi Basic Industries Corporation (SABIC)

Message:

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

SABIC® PP PCGH10 is designed with well balanced mechanical properties and easy processing behaviour for injection moulding of healthcare applications such as caps and closures, 3-part syringes, both also suitable for extrusion of film, both mono layer films and co extruded films as well. This grade offers a high stiffness combined with excellent flow properties. Due to its narrow molecular weight distribution it is very suitable for thin walled, warpage critical applications.

Compliance to regulations:

SABIC®PP PCGH10 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	Good Flow High Purity High Stiffness Homopolymer Medium Impact Resistance Narrow Molecular Weight Distribution Warp Resistant
Uses	Caps Closures Film Medical/Healthcare Applications
Agency Ratings	EP Unspecified Rating USP Class VI
Forms	Pellets
Processing Method	Film Extrusion Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.905	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	11	g/10 min	ASTM D1238, ISO 1133
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	111		ASTM D785
Shore Hardness (Shore D)	69		ISO 868

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
1% Secant ¹	1800	MPa	ASTM D638
--	1700	MPa	ISO 527-2/1A/1
Tensile Strength			
Yield ²	36.0	MPa	ASTM D638
Yield	36.0	MPa	ISO 527-2/1A/50
Tensile Elongation			
Yield ³	9.0	%	ASTM D638
Yield	9.0	%	ISO 527-2/1A/50
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	4.0	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
23°C	25	J/m	ASTM D256A
23°C	3.0	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	95.0	°C	ASTM D648
0.45 MPa, Unannealed ⁴	90.0	°C	ISO 75-2/Bf
1.8 MPa, Unannealed	60.0	°C	ASTM D648
1.8 MPa, Unannealed ⁵	55.0	°C	ISO 75-2/ Af
Vicat Softening Temperature			
--	154	°C	ASTM D1525, ISO 306/A120 5 ⁶
--	95.0	°C	ASTM D1525, ISO 306/B120 6 ⁷
NOTE			
1.	1.0 mm/min		
2.	50 mm/min		
3.	50 mm/min		
4.	testbar 80*10*4mm		
5.	testbar 80*10*4mm		
6.	Rate B (120°C/h), Loading 1 (10 N)		
7.	Rate B (120°C/h), Loading 2 (50 N)		

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