

# SABIC® PP PCGH19

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 PCGH19 is typically designed for injection molding of healthcare such as caps and closures, 3-part syringes and other thin walled applications. 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.

SABIC® PP PCGH19 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 Flow		
	High Purity		
	High Stiffness		
	Homopolymer		
	Low Warpage		
	Narrow Molecular Weight Distribution		
	Warp Resistant		
Uses	Caps		
	Closures		
	Medical Devices		
	Medical/Healthcare Applications		
	Thin-walled Parts		
Agency Ratings	EP Unspecified Rating		
	USP Class VI		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.905	g/cm <sup>3</sup>	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	19	g/10 min	ASTM D1238, ISO 1133
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	112		ASTM D785
Shore Hardness (Shore D)	71		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
1% Secant <sup>1</sup>	1850	MPa	ASTM D638

--	1800	MPa	ISO 527-2/1A/1
Tensile Strength			
Yield <sup>2</sup>	37.0	MPa	ASTM D638
Yield	37.0	MPa	ISO 527-2/1A/50
Tensile Elongation			
Yield <sup>3</sup>	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 <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			
23°C	25	J/m	ASTM D256A
23°C	3.0	kJ/m <sup>2</sup>	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 <sup>4</sup>	90.0	°C	ISO 75-2/Bf
1.8 MPa, Unannealed	65.0	°C	ASTM D648
1.8 MPa, Unannealed <sup>5</sup>	60.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	152	°C	ASTM D1525, ISO 306/A120 5 <sup>6</sup>
--	94.0	°C	ASTM D1525, ISO 306/B120 6 <sup>7</sup>
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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