

## SABIC® PP PCGR40L

PP random copolymer for Healthcare

**Description:** 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 PCGR40L is a highly transparent polypropylene random copolymer with good antistatic properties. This grade combines improved aesthetics of the finished articles with low temperature processability and a very good organoleptic performance. Part aesthetics are not affected by the lower temperatures, providing for a broader operating window, enabling short cycle times. SABIC® PP PCGR40L results in excellent demoulding characteristics and has a good stiffness to impact ratio.

**Typical applications:** SABIC® PP PCGR40L is typically used for injection moulding of housings for empty disposable 2-part syringes. A lubrication agent is added to reduce friction between moving parts. Other applications demanding a high level of transparency and friction optimization are also possible.

**Compliance to regulations:** SABIC® PP PCGR40L complies with the food contact regulations and the relevant monographs of the US Pharmacopoeia.

### Typical values

Revision 20151001

Properties	Unit (Si)	Values	Test methods
<b>Polymer properties</b>			
<b>Melt flow rate (MFR)</b> at 230 °C and 2.16 kg	dg/min	<b>40</b>	ISO 1133
<b>Density</b>	kg/m <sup>3</sup>	<b>905</b>	ISO 1183
<b>Formulation</b>			
<b>Slip agent</b>	-	<b>Yes</b>	-
<b>Clarified</b>	-	<b>Yes</b>	-
<b>Mechanical properties</b>			
<b>Tensile test</b>			ISO 527-2 1A
stress at yield 1)	MPa	<b>29</b>	
strain at yield 1)	%	<b>13</b>	
tensile modulus 2)	MPa	<b>1150</b>	
<b>Izod impact notched</b>			ISO 180/1A
at 23 °C	kJ/m <sup>2</sup>	<b>4.0</b>	
at 0 °C	kJ/m <sup>2</sup>	<b>2.0</b>	
<b>Charpy impact notched</b>			ISO 179/1eA
at 23 °C	kJ/m <sup>2</sup>	<b>4.5</b>	
at 0 °C	kJ/m <sup>2</sup>	<b>2.0</b>	

1) Speed of testing: 50 mm/min  
2) Speed of testing: 1 mm/min



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**Healthcare policy.** Do not use this SABIC product in all medical applications involving any of the following medical devices in accordance with the classification criteria and definitions as outlined in annex IX of the EU council directive on medical devices (93/42/EEC of 14 June 1993 including amendments):

1. Class IIB implantable medical devices, and both short-term (not including transient use) and long term surgically invasive devices;
2. All medical devices in class III.

**Quality:**

SABIC Europe is fully certified in accordance with the internationally accepted quality standard ISO9001.

**Storage and handling:**

Avoid prolonged storage in open sunlight, high temperatures (<50 °C) and /or high humidity as this could well speed up alteration and consequently loss of quality of the material and /or its packaging. Keep material completely dry for good processing.

**Disclaimer.** The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

SABIC as referred to herein means any legal entity belonging to the group of companies headed by SABIC Europe B.V.