

# SABIC® PC PC1003R Resin

聚碳酸酯

SABIC Innovative Plastics Asia Pacific



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## Technical Data

### 产品说明

PC1003R resin is a medium-low flow (MFR = 10 at 300°C/1.2kg), heat and UV stabilized, polycarbonate product with mold release designed for use in the general purpose molding market. It is available exclusively at [www.sabicpc.com](http://www.sabicpc.com)

### 总体

材料状态	• 已商用：当前有效
资料 <sup>1</sup>	• <a href="#">Technical Datasheet</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E207780-101295400</a>
Search for UL Yellow Card	• <a href="#">SABIC Innovative Plastics Asia Pacific</a> • <a href="#">SABIC® PC</a>
供货地区	• 亚太地区
添加剂	• 热稳定剂 • 脱模 • 紫外线稳定剂
性能特点	• 流动性中等
用途	• 一般目的
加工方法	• 注射成型

物理性能	额定值	单位制	测试方法
比重	1.20	g/cm <sup>3</sup>	ASTM D792 ISO 1183
熔流率 (300°C/1.2 kg)	10	g/10 min	ASTM D1238
溶化体积流率 (MVR) (300°C/1.2 kg)	9.50	cm <sup>3</sup> /10min	ISO 1133
收缩率 - 流动			Internal Method
-- <sup>4</sup>	0.50 到 0.70	%	
3.20 mm	0.50 到 0.70	%	
吸水率			
饱和, 23°C	0.35	%	ISO 62
平衡, 23°C	0.35	%	ASTM D570
机械性能	额定值	单位制	测试方法
拉伸模量			
-- <sup>5</sup>	2350	MPa	ASTM D638
--	2350	MPa	ISO 527-2/1
抗张强度			
屈服 <sup>6</sup>	63.0	MPa	ASTM D638
屈服	63.0	MPa	ISO 527-2/50
伸长率			
屈服 <sup>6</sup>	6.0	%	ASTM D638
屈服	6.0	%	ISO 527-2/50
断裂 <sup>6</sup>	> 70	%	ASTM D638
断裂	> 70	%	ISO 527-2/50
弯曲模量			
50.0 mm 跨距 <sup>7</sup>	2300	MPa	ASTM D790
-- <sup>8</sup>	2300	MPa	ISO 178
弯曲强度			
-- <sup>8,9</sup>	90.0	MPa	ISO 178
屈服, 50.0 mm 跨距 <sup>7</sup>	90.0	MPa	ASTM D790
冲击性能	额定值	单位制	测试方法
悬壁梁缺口冲击强度			
23°C	800	J/m	ASTM D256
-30°C <sup>10</sup>	12	kJ/m <sup>2</sup>	ISO 180/1A
23°C <sup>10</sup>	70	kJ/m <sup>2</sup>	ISO 180/1A

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冲击性能	额定值	单位制	测试方法
无缺口悬臂梁冲击			
23°C	无断裂		ASTM D4812 ISO 180/1U
-30°C <sup>10</sup>	无断裂		ISO 180/1U
装有测量仪表的落镖冲击 (23°C, Energy at Peak Load)	65.0 J		ASTM D3763
硬度	额定值	单位制	测试方法
洛氏硬度 (R 计秤)	120		ASTM D785 ISO 2039-2
热性能	额定值	单位制	测试方法
热变形温度			
0.45 MPa, 未退火, 3.20 mm	138 °C		ASTM D648
0.45 MPa, 未退火, 64.0 mm 跨距 <sup>11</sup>	138 °C		ISO 75-2/Bf
1.8 MPa, 未退火, 3.20 mm	127 °C		ASTM D648
1.8 MPa, 未退火, 64.0 mm 跨距 <sup>11</sup>	127 °C		ISO 75-2/Af
维卡软化温度	143 °C		ISO 306/B50 ASTM D1525 <sup>12</sup>
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
线形膨胀系数 - 流动			
-40 到 95°C	0.000070 cm/cm/°C		ASTM E831
23 到 80°C	0.000070 cm/cm/°C		ISO 11359-2
导热系数	0.20 W/m/K		ASTM C177 ISO 8302
电气性能	额定值	单位制	测试方法
体积电阻率	> 1.0E+15 ohm·cm		ASTM D257 IEC 60093
介电强度 (1.60 mm)	27 kV/mm		ASTM D149 IEC 60243-1
介电常数			
60 Hz	3.00		ASTM D150 IEC 60250
1 MHz	3.00		
耗散因数			
60 Hz	0.0010		ASTM D150 IEC 60250
1 MHz	0.010		
可燃性	额定值	单位制	测试方法
UL 阻燃等级 (1.60 mm)	V-2		UL 94
光学性能	额定值	单位制	测试方法
折射率	1.586		ASTM D542 ISO 489
透射率 (2540 μm)	88.0 到 90.0 %		ASTM D1003
雾度 (2540 μm)	< 0.80 %		ASTM D1003
注射	额定值	单位制	
干燥温度	120 °C		
干燥时间	2.0 到 4.0 hr		
建议的最大水分含量	0.020 %		
料筒温度	60.0 到 80.0 °C		
螺筒后部温度	260 到 280 °C		
螺筒中部温度	270 到 290 °C		
螺筒前部温度	280 到 310 °C		
射嘴温度	270 到 290 °C		
加工 (熔体) 温度	280 到 310 °C		
模具温度	80.0 到 110 °C		

备注

<sup>1</sup> 通过这些链接您能够访问供应商资料。我们尽量保证及时更新资料；不过您可以从供应商处了解最新资料。

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> 一般属性：这些不能被视为规格。

<sup>4</sup> Tensile Bar

<sup>5</sup> 50 mm/min

<sup>6</sup> 类型 1, 50 mm/min

<sup>7</sup> 1.3 mm/min

<sup>8</sup> 2.0 mm/min

<sup>9</sup> Yield

<sup>10</sup> 80\*10\*3

<sup>11</sup> 80\*10\*4 mm

<sup>12</sup> 标准 B (120°C/h), 压力2 (50N)

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### 购买地点

#### Supplier

**SABIC Innovative Plastics Asia Pacific**

Shanghai, China

Telephone: 86-21-3222-4500

Web: <http://www.sabic-ip.com/>

#### Distributor

Please contact the supplier to find a distributor for SABIC® PC PC1003R Resin



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### Prospector Plastics Database - [www.ides.com/prospector](http://www.ides.com/prospector)

Prospector is a searchable online database that includes 85,000 data sheets from 875 manufacturers and 44,000 UL yellow cards. Each data sheet includes property, processing and supplier contact information. Prospector is relied on by nearly 400,000 design engineers and plastics processors. Using Prospector, they save time with plastic material selection by quickly and easily referencing technical information critical to the success of their products.

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– Birgit Elvardt Bader, Production Manager, Micotron

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– Kevin Chase, Owner & President, Chase Plastics



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