

**Product Texts**

PC1800R resin is a medium-high flow (MFR = 18 at 300°C/1.2kg), heat 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)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	17	cm <sup>3</sup> /10min	ISO 1133
Temperature	300	°C	-
Load	1.2	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	18	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	1.2	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	2350	MPa	ISO 527
Yield stress	63	MPa	ISO 527
Yield strain	6	%	ISO 527
Strain at break	50	%	ISO 527
Flexural modulus	2300	MPa	ISO 178
Rockwell hardness	R 120	-	ISO 2039-2
<b>ASTM Data</b>			
Tensile Modulus	2350	MPa	ASTM D 638
Tensile Strength at Yield	63	MPa	ASTM D 638
Elongation at Yield	6	%	ASTM D 638
Elongation at Break	70	%	ASTM D 638
Flexural Modulus	2300	MPa	ASTM D 790
Rockwell Hardness	R 120	-	ASTM D 785
Izod Impact notched, 1/8 in	700	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	N	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	124	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	135	°C	ISO 75-1/-2
Vicat softening temperature, B	141	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-2	class	IEC 60695-11-10
Thickness tested	1.6	mm	-
Thermal Conductivity	0.2	W/(m K)	DIN 52616
<b>ASTM Data</b>			
DTUL @ 66 psi	135	°C	ASTM D 648
DTUL @ 264 psi	124	°C	ASTM D 648
Vicat Temperature	141	°C	ASTM D 1525
Thermal Conductivity, solid state	0.0288	W/(m K)	ASTM C 177

Electrical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Relative permittivity, 1MHz	3	-	IEC 62631-2-1
Dissipation factor, 100Hz	10	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	100	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	27	kV/mm	IEC 60243-1
<b>ASTM Data</b>			
Dielectric Strength, Short Time	27	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	0.001	-	ASTM D 150
Dissipation Factor, 1 MHz	0.01	-	ASTM D 150
Dielectric Constant, 60 Hz	3	-	ASTM D 150
Dielectric Constant, 1 MHz	3	-	ASTM D 150

Volume Resistivity	<b>1E15</b>	Ohm*cm	ASTM D 257
--------------------	-------------	--------	------------

<b>Optical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ASTM Data</b>			
Haze	<b>0.8</b>	%	ASTM D 1003
Light Transmittance	<b>90</b>	%	ASTM D 1003
Index of Refraction	<b>1.59</b>	-	ASTM D 542

<b>Other properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Water absorption	<b>0.35</b>	%	Sim. to ISO 62
Density	<b>1200</b>	kg/m <sup>3</sup>	ISO 1183
Water Absorption, Equilibrium	<b>0.35</b>	%	ASTM D 570
Density	<b>1200</b>	kg/m <sup>3</sup>	ASTM D 792

<b>Processing Recommendation Injection Molding</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Pre-drying - Temperature	<b>≤120</b>	°C	-
Pre-drying - Time	<b>2 - 4</b>	h	-
Melt temperature	<b>280 - 300</b>	°C	-
Mold temperature	<b>80 - 100</b>	°C	-
Zone 1	<b>260 - 280</b>	°C	-
Zone 2	<b>270 - 290</b>	°C	-
Zone 3	<b>280 - 300</b>	°C	-
Nozzle temperature	<b>270 - 290</b>	°C	-

**Characteristics**

**Special Characteristics**

Heat stabilized or stable to heat