SABIC® PC Resin PC1000R - Asia

PC — Saudi Basic Industries Corporation (SABIC)

Product Texts

PC1000R resin is a medium-low flow (MFR = 10 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

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	**9**	cm³/10min	ISO 1133
Temperature	**300**	°C	-
Load	**1.2**	kg	-
ASTM Data			
Melt Flow Index, MFI	**10**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
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
ASTM Data			
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	**800**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**N**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**127**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**138**	°C	ISO 75-1/-2
Vicat softening temperature, B	**143**	°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
ASTM Data			
DTUL @ 66 psi	**138**	°C	ASTM D 648
DTUL @ 264 psi	**127**	°C	ASTM D 648
Vicat Temperature	**143**	°C	ASTM D 1525
Thermal Conductivity, solid state	**0.0288**	W/(m K)	ASTM C 177

Electrical properties	Value	Unit	Test Standard
ISO Data			
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
ASTM Data			
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	**1E15**	Ohm*cm	ASTM D 257

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

Other properties	**Value**	**Unit**	**Test Standard**
Water absorption	**0.35**	%	Sim. to ISO 62
Density	**1200**	kg/m³	ISO 1183
Water Absorption, Equilibrium	**0.35**	%	ASTM D 570
Density	**1200**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	**Value**	**Unit**	**Test Standard**
Pre-drying - Temperature	**≤120**	°C	-
Pre-drying - Time	**2 - 4**	h	-
Melt temperature	**280 - 310**	°C	-
Mold temperature	**80 - 110**	°C	-
Zone 1	**260 - 280**	°C	-
Zone 2	**270 - 290**	°C	-
Zone 3	**280 - 310**	°C	-
Nozzle temperature	**270 - 290**	°C	-

Characteristics

Special Characteristics

Heat stabilized or stable to heat