

Product Texts

PC1000 resin is a medium-low flow (MFR = 10 at 300°C/1.2kg), heat stabilized, polycarbonate product designed for use in the custom compounding market. It does not contain UV stabilizer or mold release. It is available exclusively at www.sabicpc.com.

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|-------------------------------------|-------|------------------------|---------------|
| ISO Data | | | |
| Melt volume-flow rate, MVR | 9 | cm ³ /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 | 1.5 | 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 |

SABIC® PC Resin PC1000 - Europe

PC

Saudi Basic Industries Corporation (SABIC)

| | | | |
|--------------------|-------------|--------|------------|
| 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/m ³ | ISO 1183 |
| Water Absorption, Equilibrium | 0.35 | % | ASTM D 570 |
| Density | 1200 | kg/m ³ | 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**

U.V. stabilized or stable to weather, Heat stabilized or stable to heat