

## SABIC® PC RESIN PC0800

REGION AMERICAS

### DESCRIPTION

PC0800 resin is a low flow (MFR = 8 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](http://www.sabicpc.com).

### TYPICAL PROPERTY VALUES

Revision 20260210

| PROPERTIES                                   | TYPICAL VALUES | UNITS             | TEST METHODS   |
|----------------------------------------------|----------------|-------------------|----------------|
| <b>MECHANICAL</b>                            |                |                   |                |
| Tensile Stress, yld, Type I, 50 mm/min       | 63             | MPa               | ASTM D638      |
| Tensile Strain, yld, Type I, 50 mm/min       | 6              | %                 | ASTM D638      |
| Tensile Strain, brk, Type I, 50 mm/min       | >70            | %                 | ASTM D638      |
| Tensile Modulus, 50 mm/min                   | 2350           | MPa               | ASTM D638      |
| Flexural Stress, yld, 1.3 mm/min, 50 mm span | 90             | MPa               | ASTM D790      |
| Flexural Modulus, 1.3 mm/min, 50 mm span     | 2300           | MPa               | ASTM D790      |
| Hardness, Rockwell R                         | 120            | -                 | ASTM D785      |
| Tensile Stress, yield, 50 mm/min             | 63             | MPa               | ISO 527        |
| Tensile Strain, yield, 50 mm/min             | 6              | %                 | ISO 527        |
| Tensile Strain, break, 50 mm/min             | >70            | %                 | ISO 527        |
| Tensile Modulus, 1 mm/min                    | 2350           | MPa               | ISO 527        |
| Flexural Stress, yield, 2 mm/min             | 90             | MPa               | ISO 178        |
| Flexural Modulus, 2 mm/min                   | 2300           | MPa               | ISO 178        |
| Hardness, Rockwell R                         | 120            | -                 | ISO 2039-2     |
| <b>IMPACT</b>                                |                |                   |                |
| Izod Impact, unnotched, 23°C                 | NB             | J/m               | ASTM D4812     |
| Izod Impact, notched, 23°C                   | 900            | J/m               | ASTM D256      |
| Instrumented Dart Impact Energy @ peak, 23°C | 65             | J                 | ASTM D3763     |
| Izod Impact, unnotched 80°10'3 +23°C         | NB             | kJ/m <sup>2</sup> | ISO 180/1U     |
| Izod Impact, unnotched 80°10'3 -30°C         | NB             | kJ/m <sup>2</sup> | ISO 180/1U     |
| Izod Impact, notched 80°10'3 +23°C           | 70             | kJ/m <sup>2</sup> | ISO 180/1A     |
| Izod Impact, notched 80°10'3 -30°C           | 12             | kJ/m <sup>2</sup> | ISO 180/1A     |
| <b>THERMAL</b>                               |                |                   |                |
| Vicat Softening Temp, Rate B/50              | 144            | °C                | ASTM D1525     |
| HDT, 0.45 MPa, 3.2 mm                        | 138            | °C                | ASTM D648      |
| HDT, 1.82 MPa, 3.2 mm                        | 127            | °C                | ASTM D648      |
| CTE, -40°C to 95°C, flow                     | 7.E-05         | 1/°C              | ASTM E831      |
| Thermal Conductivity                         | 0.2            | W/m·°C            | ASTM C177      |
| Thermal Conductivity                         | 0.2            | W/m·°C            | ISO 8302       |
| CTE, 23°C to 80°C, flow                      | 7.E-05         | 1/°C              | ISO 11359-2    |
| Ball Pressure Test, 125°C +/- 2°C            | Passes         | -                 | IEC 60695-10-2 |
| Vicat Softening Temp, Rate B/50              | 144            | °C                | ISO 306        |
| HDT/Bf, 0.45 MPa Flatw 80°10'4 sp=64mm       | 138            | °C                | ISO 75/Bf      |
| HDT/Af, 1.8 MPa Flatw 80°10'4 sp=64mm        | 127            | °C                | ISO 75/Af      |

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| PROPERTIES                            | TYPICAL VALUES | UNITS      | TEST METHODS |
|---------------------------------------|----------------|------------|--------------|
| <b>PHYSICAL</b>                       |                |            |              |
| Specific Gravity                      | 1.2            | -          | ASTM D792    |
| Water Absorption, (23°C/Saturated)    | 0.35           | %          | ASTM D570    |
| Mold Shrinkage on Tensile Bar, flow   | 0.5 – 0.7      | %          | SABIC method |
| Mold Shrinkage, flow, 3.2 mm          | 0.5 – 0.7      | %          | SABIC method |
| Melt Flow Rate, 300°C/1.2 kgf         | 8              | g/10 min   | ASTM D1238   |
| Density                               | 1.2            | g/cm³      | ISO 1183     |
| Water Absorption, (23°C/saturated)    | 0.35           | %          | ISO 62-1     |
| Melt Volume Rate, MVR at 300°C/1.2 kg | 7              | cm³/10 min | ISO 1133     |
| <b>OPTICAL</b>                        |                |            |              |
| Light Transmission, 2.54 mm           | 88 – 90        | %          | ASTM D1003   |
| Haze, 2.54 mm                         | <0.8           | %          | ASTM D1003   |
| Refractive Index                      | 1.586          | -          | ASTM D542    |
| Refractive Index                      | 1.586          | -          | ISO 489      |
| <b>ELECTRICAL</b>                     |                |            |              |
| Volume Resistivity                    | >1.E+15        | Ω.cm       | ASTM D257    |
| Dielectric Strength, 1.6 mm           | 27             | kV/mm      | ASTM D149    |
| Relative Permittivity, 60 Hz          | 3              | -          | ASTM D150    |
| Relative Permittivity, 1 MHz          | 3              | -          | ASTM D150    |
| Dissipation Factor, 60 Hz             | 0.001          | -          | ASTM D150    |
| Dissipation Factor, 1 MHz             | 0.01           | -          | ASTM D150    |
| Volume Resistivity                    | >1.E+15        | Ω.cm       | IEC 60093    |
| Dielectric Strength, 1.6 mm           | 27             | kV/mm      | IEC 60243-1  |
| Relative Permittivity, 60 Hz          | 3              | -          | IEC 60250    |
| Relative Permittivity, 1 MHz          | 3              | -          | IEC 60250    |
| Dissipation Factor, 60 Hz             | 0.001          | -          | IEC 60250    |
| Dissipation Factor, 1 MHz             | 0.01           | -          | IEC 60250    |
| <b>INJECTION MOLDING</b>              |                |            |              |
| Drying Temperature                    | 120            | °C         |              |
| Drying Time                           | 2 – 4          | Hrs        |              |
| Maximum Moisture Content              | 0.02           | %          |              |
| Melt Temperature                      | 290 – 320      | °C         |              |
| Nozzle Temperature                    | 280 – 310      | °C         |              |
| Front - Zone 3 Temperature            | 290 – 320      | °C         |              |
| Middle - Zone 2 Temperature           | 280 – 310      | °C         |              |
| Rear - Zone 1 Temperature             | 270 – 300      | °C         |              |
| Hopper Temperature                    | 60 – 80        | °C         |              |
| Mold Temperature                      | 80 – 120       | °C         |              |

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