

# Kotex/Carbotex Polycarbonate



Grade: K-30FR

General purpose injection moulding

Colour: Clear

Medium viscosity, Flame retardant

| Properties                    | Standards  | Test conditions                   | Units               | Typical values   |
|-------------------------------|------------|-----------------------------------|---------------------|------------------|
| <b>Mechanical Properties</b>  |            |                                   |                     |                  |
| Izod impact strength          | ASTM D256  | 23°C<br>V-notched 1/8"            | J/m                 | 780              |
|                               |            |                                   | kgf·cm/cm           | 80               |
|                               |            |                                   | ft·lbf/in           | 15               |
| Tensile strength at break     | ASTM D638  | ---                               | MPa                 | 63               |
|                               |            |                                   | kgf/cm <sup>2</sup> | 640              |
|                               |            |                                   | lbf/in <sup>2</sup> | 9100             |
| Tensile elongation at break   | ASTM D638  | ---                               | %                   | 120              |
| Flexural strength             | ASTM D790  | ---                               | MPa                 | 85               |
|                               |            |                                   | kgf/cm <sup>2</sup> | 870              |
|                               |            |                                   | lbf/in <sup>2</sup> | 12400            |
| Flexural modulus              | ASTM D790  | ---                               | MPa                 | 2160             |
|                               |            |                                   | kgf/cm <sup>2</sup> | 22000            |
|                               |            |                                   | lbf/in <sup>2</sup> | 313000           |
| <b>Thermal Properties</b>     |            |                                   |                     |                  |
| Melt flow rate                | ASTM D1238 | 300°C, 1.2kgf                     | g/10min             | 15               |
| Heat deflection temperature   | ASTM D648  | 18.6 kgf/cm <sup>2</sup>          | °C                  | 132              |
|                               |            |                                   | °F                  | 269              |
| <b>Electrical Properties</b>  |            |                                   |                     |                  |
| Dielectric breakdown strength | ASTM D149  | 1.6mm                             | kV/mm               | 20               |
| Dielectrical constant         | ASTM D150  | 10 <sup>6</sup> Hz                | ---                 | 2.9              |
| Dissipation factor            | ASTM D150  | 10 <sup>6</sup> Hz                | ---                 | 0.009            |
| Arc resistance                | ASTM D495  | ---                               | Sec.                | 110              |
| Volume resistivity            | ASTM D257  | ---                               | Ω·cm                | 10 <sup>16</sup> |
| <b>Optical Properties</b>     |            |                                   |                     |                  |
| Light transmittance           | ASTM D1003 | 3 mm                              | %                   | 89               |
| Light refractive              | ASTM D542  | ---                               | ---                 | 1.58             |
| Haze                          | ASTM D1003 | 3 mm                              | %                   | < 1              |
| <b>Other Properties</b>       |            |                                   |                     |                  |
| Specific gravity              | ASTM D792  | ---                               | ---                 | 1.2              |
| Water absorption              | ASTM D570  | 24 hrs at 23°C<br>water immersion | %                   | ≤ 0.2            |
| Mould shrinkage               | ASTM D955  | ---                               | %                   | 0.5~0.7          |
| Flammability                  | UL94       | ---                               | ---                 | V-0 @ 3.0 mm     |

To our best knowledge, the values contained herein are typical of uncoloured PC and given in good faith. They may be affected by colorants, other additives, the design of a mould/die, moulding techniques applied, the size and shape of a moulded article. In view of these factors, the properties do not relieve customers from carrying out their own investigations and tests. It is entirely the customer's responsibility to determine the suitability of material and grade used for their intended application. No warranty, express or implied is made nor is liability accepted in connection with any of the information provided. We reserve the right to make additions, deletions, or modifications to the information at any time without prior notification. Kotec Corporation (30.5.2006)