

# KOCETAL<sup>®</sup> K300EW

Polyacetal, General Purpose, Injection Molding, Medium-Viscosity

| Properties                        | Measurement condition | Test Method | Unit                   | Typical value |
|-----------------------------------|-----------------------|-------------|------------------------|---------------|
| <b>Physical</b>                   |                       |             |                        |               |
| Density                           |                       | ISO 1183    | g/cm <sup>3</sup>      | 1.41          |
| Melt Flow Index                   | 190 °C, 2.16 kg       | ISO 1133    | g/10min                | 9.5           |
| Melt Volume Rate                  | 190 °C, 2.16 kg       | ISO 1133    | cm <sup>3</sup> /10min | 8.5           |
| Shrinkage                         |                       | ISO 294-4   | %                      | 2.0-2.4       |
| Water Absorption                  | 23 °C, 50% RH         | ISO 62      | %                      | 0.22          |
| <b>Mechanical</b>                 |                       |             |                        |               |
| Tensile Strength at Yield (4.0mm) | 50 mm/min             | ISO 527     | MPa                    | 64            |
| Elongation at Break (4.0mm)       | 50 mm/min             | ISO 527     | %                      | 35            |
| Strain at Yield, (4.0mm)          | 50 mm/min             | ISO 527     | %                      | 12            |
| Flexural Strength (4.0mm)         | 2 mm/min              | ISO 178     | MPa                    | 84            |
| Flexural Modulus (4.0mm)          | 2 mm/min              | ISO 178     | MPa                    | 2,550         |
| Charpy Impact Strength, (4.0mm)   |                       | ISO 179/1eA |                        |               |
| (Notched)                         | 23 °C                 |             | kJ/m <sup>2</sup>      | 7.0           |
|                                   | -30 °C                |             | kJ/m <sup>2</sup>      | -             |
| Rockwell Hardness                 | M scale               | ISO 2039-2  | -                      | 80            |
| <b>Thermal</b>                    |                       |             |                        |               |
| Melting Point                     | 20 °C/min             | ISO 11357-1 | °C                     | 167           |
| Heat Deflection Temperature       | 1.8 MPa               | ISO 75      | °C                     | 95            |
| Coefficient of linear expansion   |                       | ISO 11359   | × E <sup>-6</sup> /K   | -             |
| Flammability (0.8mm)              |                       | UL94        | Class                  | HB            |
| <b>Electrical</b>                 |                       |             |                        |               |
| Dielectric Strength               |                       | IEC 60243   | kV/mm                  | -             |
| Volume Resistivity                |                       | IEC 60093   | Ω·cm                   | -             |
| Surface Resistivity               |                       | IEC 60093   | Ω                      | -             |
| ※ ( Test specimen Thickness )     |                       |             |                        |               |



**Processing Guide (Injection Molding)**

|                                          |           |                       |           |           |  |
|------------------------------------------|-----------|-----------------------|-----------|-----------|--|
| Drying Temperature(°C)                   | 80 ~ 90   | (Dehumidifying Dryer) |           |           |  |
| Drying Time(hr)                          | 3 ~ 5     |                       |           |           |  |
| Limitation of Processing Temperature(°C) | 220       |                       |           |           |  |
| Processing Moisture Contents(%)          | ≤ 0.1     |                       |           |           |  |
| Cylinder Temperature(°C)                 | Nozzle    | Front                 | Middle    | Rear      |  |
|                                          | 180 ~ 200 | 180 ~ 200             | 170 ~ 190 | 160 ~ 180 |  |
| Mold Temperature(°C)                     | 60 ~ 80   |                       |           |           |  |

