

# KOCETAL<sup>®</sup> LW301

Polyacetal, Tribological grade, Injection Molding, Medium Viscosity

| Properties                        | Measurement condition          | Test Method | Unit                          | Typical value |
|-----------------------------------|--------------------------------|-------------|-------------------------------|---------------|
| <b>Physical</b>                   |                                |             |                               |               |
| Specific Gravity                  |                                | ASTM D792   | —                             | 1.39          |
| Melt Flow Index                   | 190 °C, 2.16 kg                | ASTM D1238  | g/10min                       | 10.0          |
| Shrinkage                         |                                | ASTM D955   | %                             | 1.3-1.9       |
| Water Absorption                  | 23 °C, H <sub>2</sub> O, 24 hr | ASTM D570   | %                             | 0.21          |
| <b>Mechanical</b>                 |                                |             |                               |               |
| Tensile Strength at Yield (3.2mm) | 20 mm/min                      | ASTM D638   | MPa                           | 55            |
| Nominal Strain at Break(3.2mm)    | 20 mm/min                      | ASTM D638   | %                             | 50            |
| Flexural Strength (3.2mm)         | 10 mm/min                      | ASTM D790   | MPa                           | 90            |
| Flexural Modulus (3.2mm)          | 10 mm/min                      | ASTM D790   | MPa                           | 2,400         |
| Izod Impact Strength (6.4mm)      |                                | ASTM D256   |                               |               |
| (Notched)                         | 23 °C                          |             | J/m                           | 85            |
|                                   | -30 °C                         |             | J/m                           | —             |
| Rockwell Hardness                 | M scale                        | ASTM D785   | —                             | 78            |
| <b>Thermal</b>                    |                                |             |                               |               |
| Melting Point                     | 20 °C/min                      | ASTM D1525  | °C                            | 167           |
| Heat Deflection Temperature       | 1.8 MPa                        | ASTM D648   | °C                            | 100           |
| Coefficient of linear expansion   |                                | ASTM D696   | × 10 <sup>-5</sup> cm/cm · °C | 14            |
| 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 /sq                         | —             |

※ 1MPa = 10.197162 Kgf/cm<sup>2</sup>, 1J/m = 0.10197 Kgf · cm/cm, ( Test specimen Thickness )



Processing Guide (Injection Molding)

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

