KOLON PLASTICS

# KOPEL® KP3355MF

Injection Molding/Extrusion, PEL, Monofilament, Mdium Modulus

**Application**

Automotive(Car sheet monofilament)

| Properties | Measurement condition | Test Method | Unit | Typical value |
|---|---|---|---|---|
| **Physical** | | | | |
| Density | | ASTM D792 | - | 1.18 |
| Melt Flow Index | 220 ℃, 2.16kg | ASTM D1238 | g/10min | 25.6 |
| Shrinkage | | ASTM D955 | % | 1.1~1.2 |
| Water Absorption | 23℃, $H_2O$, 24hr | ASTM D570 | % | 0.5 |
| **Mechanical** | | | | |
| Tensile Strength at Break (3.2mm) | 200 mm/min | ASTM D638 | MPa | 21 |
| Elongation at Break (3.2mm) | 200 mm/min | ASTM D638 | % | 563 |
| Flexural Strength (3.2mm) | 200 mm/min | ASTM D790 | MPa | 11 |
| Flexural Modulus (3.2mm) | 200 mm/min | ASTM D790 | MPa | 192 |
| Izod Impact Strength (6.4mm) | | ASTM D256 | | |
| (Notched) | 23 ℃ | | J/m | |
| | -30 ℃ | | J/m | |
| Shore hardness | D scale | ASTM D2240 | - | 55 |
| **Thermal** | | | | |
| Melting Point | 20 ℃/min | ASTM D3418 | ℃ | 195 |
| Vicat softening temperature | 10N | ASTM D1525 | ℃ | 170 |
| Flammability(0.8mm) | | UL94 | Class | HB |
| **Electrical** | | | | |
| Dielectric Strength | | IEC 60243 | kV/mm | |
| Volume Resistivity | | IEC 60093 | Ω·cm | |
| Surface Resistivity | | IEC 60093 | Ω/sq | |

※ 1Mpa = 10.197162 Kgf/cm$^2$, 1J/m = 0.10197 Kgf·cm/cm, ( Test specimen Thickness )

## Processing Guide (Injection Molding)

| | | | | |
|---|---|---|---|---|
| Drying Temperature(℃) | 100~110 | (Dehumidifying Dryer) | | |
| Drying Time(hr) | 3~8 | | | |
| Processing Moisture Contents(%) | ≤ 0.1 | | | |
| Cylinder Temperature(℃) | Nozzle | Front | Middle | Rear |
| | 210~220 | 210~220 | 200~220 | 180~190 |
| Mold Temperature(℃) | 20~40 | | | |