

## Product Information

### Impact Resistant Grade

## KOPA<sup>®</sup> KN1 Series

KOPA<sup>®</sup> KN1 Series is the plastic material based on polyamide-6 that is a thermoplastic resin with excellent mechanical, thermal and electrical properties. KOPA<sup>®</sup> KN1 Series is widely used in the manufacture of automobile and industrial parts.

## KOPA<sup>®</sup> KN173HIHS

High viscosity, Heat-resistant, Extrudable, Polyamide6 Compound resin

| Properties | Test Method | Unit | Typical Value |
|------------|-------------|------|---------------|
|------------|-------------|------|---------------|

### Physical

|                  |                              |        |   |
|------------------|------------------------------|--------|---|
| Specific Gravity | ISO 1183                     | -      | - |
| Filler Contents  | ISO 1172                     | %      | - |
| Shrinkage        | ISO 294                      | %      | - |
| Water Absorption | 23°C, H <sub>2</sub> O, 24hr | ISO 62 | % |

### Mechanical

|                                |      |             |                   |       |
|--------------------------------|------|-------------|-------------------|-------|
| Tensile Strength               | 23°C | ISO 527     | MPa               | 65    |
| Tensile Elongation             | 23°C | ISO 527     | %                 | 110   |
| Flexural Strength              | 23°C | ISO 178     | MPa               | 90    |
| Flexural Modulus               | 23°C | ISO 178     | MPa               | 2,300 |
| Notched Charpy Impact Strength | 23°C | ISO 179/1eA | kJ/m <sup>2</sup> | 15    |
| Rockwell Hardness              |      | ISO 2039-1  | R scale           | 120   |

### Thermal

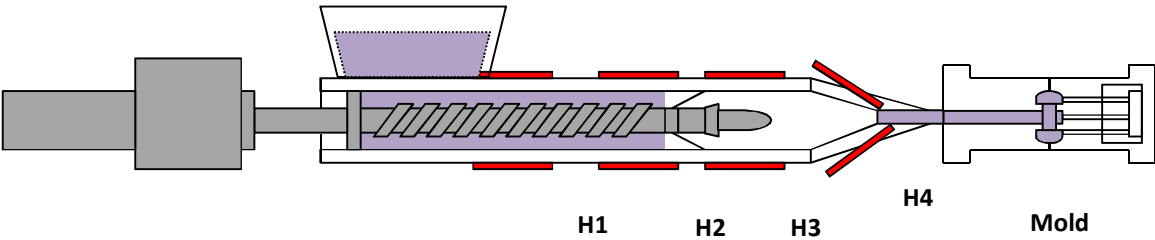
|                             |          |             |    |     |
|-----------------------------|----------|-------------|----|-----|
| Melting Point               |          | ISO 11357-1 | °C | 220 |
| Heat Deflection Temperature |          | ISO 75      |    |     |
|                             | 0.45 MPa |             | °C |     |
|                             | 1.8 MPa  |             | °C | 55  |
| Flammability(0.8mm)         |          | UL94        |    | HB  |



**Electrical**

|                                 |           |        |  |
|---------------------------------|-----------|--------|--|
| Comparative Tracking Index(CTI) | IEC 60112 | Volts  |  |
| Volume Resistivity              | IEC 60093 | Ohm·cm |  |
| Surface Resistivity             | IEC 60093 | Ohm    |  |

**Processing Guide (Injection Molding)**



|                                 | H1                                  | H2  | H3  | H4  |
|---------------------------------|-------------------------------------|-----|-----|-----|
| Cylinder Temperature(°C)        | 230                                 | 240 | 250 | 250 |
| Mold Temperature(°C)            | 60~80                               |     |     |     |
| Processing Moisture Contents(%) | ≤0.05                               |     |     |     |
| Pre-drying                      | Dehumidified Dryer, 80~100°C, 4~5hr |     |     |     |

