

# EcoBlend® KCA9451NH

Polycarbonate + PET

Shanghai KumhoSunny Plastics Co., Ltd.

## Message:

KCA9451NH is halogen free flame retardant PC/PET resin.KCA9451NH has excellent processing properties and high tenacity.KCA9451NH is mainly used in housing of OA & TV set, panel of stereo equipment,etc.

| General Information                                     |                     |                   |                         |
|---------------------------------------------------------|---------------------|-------------------|-------------------------|
| Additive                                                | Flame Retardant     |                   |                         |
| Features                                                | Flame Retardant     |                   |                         |
|                                                         | Good Processability |                   |                         |
|                                                         | Halogen Free        |                   |                         |
| Uses                                                    | Housings            |                   |                         |
| UL File Number                                          | E65424              |                   |                         |
| Forms                                                   | Pellets             |                   |                         |
| Processing Method                                       | Injection Molding   |                   |                         |
| Physical                                                | Nominal Value       | Unit              | Test Method             |
| Specific Gravity                                        | 1.20                | g/cm <sup>3</sup> | ASTM D792               |
| Melt Mass-Flow Rate (MFR)                               |                     |                   | ASTM D1238              |
| 220°C/10.0 kg                                           | 32                  | g/10 min          |                         |
| 265°C/2.16 kg                                           | 32                  | g/10 min          |                         |
| Molding Shrinkage - Flow                                | 0.60 to 0.80        | %                 | ASTM D955               |
| Mechanical                                              | Nominal Value       | Unit              | Test Method             |
| Tensile Strength                                        | 58.0                | MPa               | ASTM D638               |
| Tensile Elongation (Break)                              | 50                  | %                 | ASTM D638               |
| Flexural Modulus                                        | 2350                | MPa               | ASTM D790               |
| Flexural Strength                                       | 85.0                | MPa               | ASTM D790               |
| Impact                                                  | Nominal Value       | Unit              | Test Method             |
| Notched Izod Impact (3.20 mm)                           | 500                 | J/m               | ASTM D256               |
| Thermal                                                 | Nominal Value       | Unit              | Test Method             |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 78.0                | °C                | ASTM D648               |
| Vicat Softening Temperature                             | 94.0                | °C                | ASTM D1525 <sup>1</sup> |
| Electrical                                              | Nominal Value       | Unit              | Test Method             |
| Surface Resistivity                                     | > 1.0E+15           | ohms              | IEC 60093               |
| Volume Resistivity                                      | > 1.0E+15           | ohms · cm         | IEC 60093               |
| Flammability                                            | Nominal Value       | Unit              | Test Method             |
| Flame Rating                                            |                     |                   | UL 94                   |
| 0.800 mm                                                | V-2                 |                   |                         |

V-0

1.60 mm

5VB

V-0

2.00 mm

5VB

| Additional Information |                  | Nominal Value |
|------------------------|------------------|---------------|
| CSA File No.           |                  | LS 66457      |
| Injection              | Nominal Value    | Unit          |
| Drying Temperature     | 80.0 to 90.0     | °C            |
| Drying Time            | 3.0 to 4.0       | hr            |
| Suggested Max Moisture | 0.020            | %             |
| Rear Temperature       | 220 to 230       | °C            |
| Middle Temperature     | 240 to 250       | °C            |
| Front Temperature      | 255 to 265       | °C            |
| Nozzle Temperature     | 250 to 260       | °C            |
| Processing (Melt) Temp | 255 to 265       | °C            |
| Mold Temperature       | 50.0 to 70.0     | °C            |
| Back Pressure          | 1.00 to 5.00     | MPa           |
| Screw Speed            | 40 to 90         | rpm           |
| NOTE                   |                  |               |
| 1.                     | Rate B (120°C/h) |               |

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