

# KumhoSunny PBT/PET HEB4051M

Polybutylene Terephthalate + PET

Shanghai KumhoSunny Plastics Co., Ltd.

## Message:

HEB4051M is a mineral filled PBT/PET alloy resin, offering good mechanical properties, outstanding appearance, very low haze and excellent processing properties. HEB4051M is recommended for headlight lamp,such as bezel,etc.

| General Information                                             |                           |                   |             |
|-----------------------------------------------------------------|---------------------------|-------------------|-------------|
| Features                                                        | Good Processability       |                   |             |
|                                                                 | Good Processing Stability |                   |             |
| Uses                                                            | Consumer Applications     |                   |             |
|                                                                 | Lighting Applications     |                   |             |
| UL File Number                                                  | E254819                   |                   |             |
|                                                                 | E65424                    |                   |             |
| Forms                                                           | Pellets                   |                   |             |
| Processing Method                                               | Injection Molding         |                   |             |
| Physical                                                        | Nominal Value             | Unit              | Test Method |
| Density (23°C)                                                  | 1.50                      | g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)                       | 15                        | g/10 min          | ISO 1133    |
| Molding Shrinkage (23°C)                                        | 0.80 to 1.2               | %                 | ISO 294-4   |
| Mechanical                                                      | Nominal Value             | Unit              | Test Method |
| Tensile Stress                                                  | 45.0                      | MPa               | ISO 527-2/5 |
| Flexural Modulus <sup>1</sup>                                   | 4000                      | MPa               | ISO 178     |
| Flexural Stress <sup>2</sup>                                    | 75.0                      | MPa               | ISO 178     |
| Impact                                                          | Nominal Value             | Unit              | Test Method |
| Charpy Notched Impact Strength                                  |                           |                   | ISO 179     |
| -30°C                                                           | 3.5                       | kJ/m <sup>2</sup> |             |
| 23°C                                                            | 5.5                       | kJ/m <sup>2</sup> |             |
| Notched Izod Impact Strength (23°C)                             | 5.0                       | kJ/m <sup>2</sup> | ISO 180     |
| Thermal                                                         | Nominal Value             | Unit              | Test Method |
| Heat Deflection Temperature <sup>3</sup> (0.45 MPa, Unannealed) | 200                       | °C                | ISO 75-2/B  |
| Electrical                                                      | Nominal Value             | Unit              | Test Method |
| Surface Resistivity                                             | > 1.0E+15                 | ohms              | IEC 60093   |
| Volume Resistivity                                              | > 1.0E+15                 | ohms · cm         | IEC 60093   |
| Injection                                                       | Nominal Value             | Unit              |             |
| Drying Temperature                                              | 100 to 120                | °C                |             |

|                        |                |     |
|------------------------|----------------|-----|
| Drying Time            | 4.0 to 6.0     | hr  |
| Suggested Max Moisture | 0.020          | %   |
| Rear Temperature       | 230 to 240     | °C  |
| Middle Temperature     | 240 to 250     | °C  |
| Front Temperature      | 250 to 255     | °C  |
| Nozzle Temperature     | 255 to 265     | °C  |
| Processing (Melt) Temp | 245 to 265     | °C  |
| Mold Temperature       | 70.0 to 80.0   | °C  |
| Back Pressure          | 0.200 to 0.800 | MPa |
| Screw Speed            | 20 to 100      | rpm |

#### NOTE

1. 2.0 mm/min
2. 2.0 mm/min
3. 120°C/h

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