

# EF378L

## Description

EF378L is a Flame Retardant ABS product for injection molding, designed to have a non-halogen flammability rating of V-2 at 0.8mm.

## Key Features

Flame Retardancy, Non-Halogen

## Application

MFP (Multi-Function Printer), Sound Bar, Electrical/Electronic Products

| Properties                  | Condition                         | Method     | Unit              | EF378L    |
|-----------------------------|-----------------------------------|------------|-------------------|-----------|
| <b>Physical</b>             |                                   |            |                   |           |
| Specific Gravity            | 23°C                              | ISO 1183   |                   | 1.06      |
| Mold Shrinkage              | 23°C, 3.2mm                       | ISO 294-4  | %                 | 0.4 ~ 0.7 |
| Melt Flow Rate              | 220°C, 10kg                       | ISO 1133   | g/10min           | 55        |
| <b>Mechanical</b>           |                                   |            |                   |           |
| Tensile Strength at Yield   | 23°C, 50mm/min, 4mm               | ISO 527    | MPa               | 45        |
| Tensile Elongation at Yield | 23°C, 50mm/min, 4mm               | ISO 527    | %, (Min)          | 5         |
| Tensile Elongation at Break | 23°C, 50mm/min, 4mm               | ISO 527    | %, (Min)          | 15        |
| Flexural Strength           | 23°C, 2mm/min, 4mm                | ISO 178    | MPa               | 72        |
| Flexural Modulus            | 23°C, 2mm/min, 4mm                | ISO 178    | MPa               | 2600      |
| Izod Impact Strength        | Notched, 4mm, 23°C                | ISO 180/1A | kJ/m <sup>2</sup> | 14        |
| Rockwell Hardness           | R-Scale                           | ISO 2039   |                   | 105       |
| <b>Thermal</b>              |                                   |            |                   |           |
| Heat Deflection Temperature | Flatwise, 1.8MPa, 4mm, Unannealed | ISO 75     | °C                | 75        |
| Vicat Softening Temperature | 50N, 50°C/h                       | ISO 306    | °C                | 86        |
| Flammability                | 0.8mm                             | UL 94      |                   | V-2       |
| Flammability                | 3.0mm                             | UL 94      |                   | V-2       |

## Note

Typical values can be used only for the purpose of selecting material, and there can be variation within normal tolerances for various colors.

Values given should not be interpreted as specification and not be used for designing part or tool.

All properties, except melt flow index are measured by injection molded specimens after 48 hours storage at 23°C, 50% relative humidity.

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## Processing Guide (Injection Molding)

| Processing Parameters | Unit | Value     |
|-----------------------|------|-----------|
| Drying Temperature    | °C   | 70 ~ 80   |
| Drying Time           | hrs  | 3 ~ 4     |
| Injection Temperature | °C   | 200 ~ 240 |
| Mold Temperature      | °C   | 40 ~ 80   |
| Screw Speed           | rpm  | 30 ~ 60   |

## Note

Injection Temperature & Screw Speed are only mentioned as general guidelines.

These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

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