

# LG ABS HG173

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Saturday, July 20, 2019

## General Information

### Product Description

#### Description

- High surface gloss

#### Application

- Electric/electronic products

### General

|                   |  |
|-------------------|--|
| Material Status   | • Commercial: Active   |
| Availability      | • Asia Pacific<br>• Europe<br>• Latin America<br>• North America |
| Features          | • High Gloss   |
| Uses              | • Electrical/Electronic Applications                             |
| Processing Method | • Injection Molding  |

## ASTM & ISO Properties <sup>1</sup>

| Physical   | Nominal Value | Unit              | Test Method             |
|--|---------------|-------------------|-------------------------|
| Density / Specific Gravity <sup>2</sup>                          | 1.05          | g/cm <sup>3</sup> | ASTM D792               |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)                        | 23            | g/10 min          | ASTM D1238              |
| Molding Shrinkage - Flow (23°C, 3.20 mm, Injection Molded)       | 0.40 to 0.70  | %                 | ASTM D955               |
| Mechanical   | Nominal Value | Unit              | Test Method             |
| Tensile Modulus <sup>3</sup> (23°C, 3.20 mm, Injection Molded)   | 2200          | MPa               | ASTM D638               |
| Tensile Strength <sup>3</sup>                                    |               |                   | ASTM D638               |
| Yield, 23°C, 3.20 mm, Injection Molded                           | 46.0          | MPa               |                         |
| Tensile Elongation <sup>3</sup>                                  |               |                   | ASTM D638               |
| Yield, 23°C, 3.20 mm, Injection Molded                           | > 5.0         | %                 |                         |
| Tensile Elongation <sup>3</sup>                                  |               |                   | ASTM D638               |
| Break, 23°C, 3.20 mm, Injection Molded                           | > 10          | %                 |                         |
| Flexural Modulus <sup>4</sup> (23°C, 3.20 mm, Injection Molded)  | 2500          | MPa               | ASTM D790               |
| Flexural Strength <sup>4</sup> (23°C, 3.20 mm, Injection Molded) | 73.0          | MPa               | ASTM D790               |
| Impact   | Nominal Value | Unit              | Test Method             |
| Notched Izod Impact  |               |                   | ASTM D256               |
| -30°C, 3.20 mm, Injection Molded                                 | 90            | J/m               |                         |
| -30°C, 6.40 mm, Injection Molded                                 | 90            | J/m               |                         |
| 23°C, 3.20 mm, Injection Molded                                  | 230           | J/m               |                         |
| 23°C, 6.40 mm, Injection Molded                                  | 230           | J/m               |                         |
| Hardness   | Nominal Value | Unit              | Test Method             |
| Rockwell Hardness (R-Scale, 23°C, Injection Molded)              | 109           |                   | ASTM D785               |
| Thermal  | Nominal Value | Unit              | Test Method             |
| Deflection Temperature Under Load                                |               |                   | ASTM D648               |
| 1.8 MPa, Unannealed, 6.40 mm, Injection Molded                   | 85.0          | °C                |                         |
| Vicat Softening Temperature                                      | 93.0          | °C                | ASTM D1525 <sup>5</sup> |
| RTI Elec   | 60.0          | °C                | UL 746                  |

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| Thermal | Nominal Value | Unit | Test Method |
|---------|---------------|------|-------------|
| RTI Imp | 60.0          | °C   | UL 746      |
| RTI Str | 60.0          | °C   | UL 746      |

  

| Flammability | Nominal Value | Unit | Test Method |
|--------------|---------------|------|-------------|
| Flame Rating |               |      | UL 94       |
| 1.5 mm       |               | HB   |             |
| 3.0 mm       |               | HB   |             |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 70 to 80      | °C   |
| Drying Time            | 2.0 to 4.0    | hr   |
| Rear Temperature       | 180 to 200    | °C   |
| Middle Temperature     | 190 to 210    | °C   |
| Front Temperature      | 200 to 220    | °C   |
| Nozzle Temperature     | 200 to 230    | °C   |
| Processing (Melt) Temp | 210 to 240    | °C   |
| Mold Temperature       | 40 to 70      | °C   |
| Back Pressure          | 0.490 to 1.47 | MPa  |
| Screw Speed            | 30 to 60      | rpm  |

#### Injection Notes

Minimum Moisture Content: 0.01%

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 23°C

<sup>3</sup> 50 mm/min

<sup>4</sup> 15 mm/min

<sup>5</sup> Rate A (50°C/h), Loading 2 (50 N)