

# LG ABS AF366

Acrylonitrile Butadiene Styrene

LG Chem Ltd.

## Message:

Description  
Flame Retardant, Heat resistant  
Application  
Electric parts, IT/OA device  
TV, monitor housing

| General Information                            |                       |                   |             |
|------------------------------------------------|-----------------------|-------------------|-------------|
| UL YellowCard                                  | E67171-101675454      |                   |             |
| Features                                       | Good Heat Resistance  |                   |             |
|                                                | Flame retardancy      |                   |             |
| Uses                                           | Electrical components |                   |             |
|                                                | TV housing            |                   |             |
| RoHS Compliance                                | RoHS compliance       |                   |             |
| Processing Method                              | Injection molding     |                   |             |
| Physical                                       | Nominal Value         | Unit              | Test Method |
| Specific Gravity                               | 1.19                  | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)      | 25                    | g/10 min          | ASTM D1238  |
| Molding Shrinkage - Flow (3.20 mm)             | 0.40 - 0.70           | %                 | ASTM D955   |
| Hardness                                       | Nominal Value         | Unit              | Test Method |
| Rockwell Hardness (R-Scale)                    | 108                   |                   | ASTM D785   |
| Mechanical                                     | Nominal Value         | Unit              | Test Method |
| Tensile Modulus <sup>1</sup> (3.20 mm)         | 2060                  | MPa               | ASTM D638   |
| Tensile Strength <sup>2</sup> (Yield, 3.20 mm) | 39.2                  | MPa               | ASTM D638   |
| Tensile Elongation <sup>3</sup>                |                       |                   | ASTM D638   |
| Yield, 3.20mm                                  | 5.0                   | %                 | ASTM D638   |
| Fracture, 3.20mm                               | > 20                  | %                 | ASTM D638   |
| Flexural Modulus <sup>4</sup> (6.40 mm)        | 2450                  | MPa               | ASTM D790   |
| Flexural Strength <sup>5</sup> (6.40 mm)       | 70.6                  | MPa               | ASTM D790   |
| Impact                                         | Nominal Value         | Unit              | Test Method |
| Notched Izod Impact                            |                       |                   | ASTM D256   |
| -30°C, 3.20 mm                                 | 69                    | J/m               | ASTM D256   |
| -30°C, 6.40 mm                                 | 59                    | J/m               | ASTM D256   |
| 23°C, 3.20 mm                                  | 210                   | J/m               | ASTM D256   |
| 23°C, 6.40 mm                                  | 180                   | J/m               | ASTM D256   |
| Thermal                                        | Nominal Value         | Unit              | Test Method |

|                                   |                          |      |                         |
|-----------------------------------|--------------------------|------|-------------------------|
| Deflection Temperature Under Load |                          |      | ASTM D648               |
| 0.45 MPa, unannealed, 6.40mm      | 90.0                     | °C   | ASTM D648               |
| 1.8 MPa, unannealed, 6.40mm       | 84.0                     | °C   | ASTM D648               |
| Vicat Softening Temperature       | 91.0                     | °C   | ASTM D1525 <sup>6</sup> |
| RTI Elec                          | 60.0                     | °C   | UL 746                  |
| RTI Imp                           | 60.0                     | °C   | UL 746                  |
| RTI                               | 60.0                     | °C   | UL 746                  |
| Flammability                      | Nominal Value            |      | Test Method             |
| Flame Rating                      |                          |      | UL 94                   |
| 1.5 mm                            | V-0                      |      | UL 94                   |
|                                   | V-0                      |      |                         |
| 2.0 mm                            | 5VB                      |      | UL 94                   |
|                                   | V-0                      |      |                         |
| 2.5 mm                            | 5VA                      |      | UL 94                   |
|                                   | V-0                      |      |                         |
| 3.0 mm                            | 5VA                      |      | UL 94                   |
| Injection                         | Nominal Value            | Unit |                         |
| Drying Temperature                | 80 - 90                  | °C   |                         |
| Drying Time                       | 3.0 - 4.0                | hr   |                         |
| Suggested Max Moisture            | 0.010                    | %    |                         |
| Rear Temperature                  | 170 - 190                | °C   |                         |
| Middle Temperature                | 180 - 200                | °C   |                         |
| Front Temperature                 | 190 - 210                | °C   |                         |
| Nozzle Temperature                | 200 - 230                | °C   |                         |
| Processing (Melt) Temp            | 200 - 230                | °C   |                         |
| Mold Temperature                  | 40 - 60                  | °C   |                         |
| Back Pressure                     | 0.490 - 0.981            | MPa  |                         |
| Screw Speed                       | 30 - 60                  | rpm  |                         |
| NOTE                              |                          |      |                         |
| 1.                                | 1.0 mm/min               |      |                         |
| 2.                                | 50 mm/min                |      |                         |
| 3.                                | 50 mm/min                |      |                         |
| 4.                                | 15 mm/min                |      |                         |
| 5.                                | 15 mm/min                |      |                         |
| 6.                                | 速率 A (50°C/h), 载荷2 (50N) |      |                         |

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519  
Phone: +86 13424755533  
Email: sales@su-jiao.com  
No. 215, Lianhe North Road, Fengxian District, Shanghai, China

