

LG ABS AF312A

Acrylonitrile Butadiene Styrene

LG Chem Ltd.

PROSPECTOR®

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Technical Data

Product Description

Description
Flame Retardant

Application
Electric/Electronic Applications(TV, Monitor Housing)
IT/OA device

General

| | |
|-----------------------------|---|
| Material Status | • Commercial: Active |
| Literature ¹ | • Technical Datasheet (English) |
| UL Yellow Card ² | • E248280-462772 • E67171-248341 |
| Search for UL Yellow Card | • LG Chem Ltd. • LG ABS |
| Availability | • Asia Pacific • Europe • Latin America • North America |
| Features | • Flame Retardant |
| Uses | • Electrical/Electronic Applications |
| Processing Method | • Injection Molding |

| Physical | Nominal Value Unit | Test Method |
|---|------------------------|-------------|
| Specific Gravity | 1.19 g/cm ³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg) | 60 g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (3.20 mm) | 0.40 to 0.70 % | ASTM D955 |

| Mechanical | Nominal Value Unit | Test Method |
|--|--------------------|-------------|
| Tensile Modulus ⁴ (3.20 mm) | 2260 MPa | ASTM D638 |
| Tensile Strength ⁵ (Yield, 3.20 mm) | 46.1 MPa | ASTM D638 |
| Tensile Elongation ⁵ | | ASTM D638 |
| Yield, 3.20 mm | 5.0 % | |
| Break, 3.20 mm | 20 % | |
| Flexural Modulus ⁶ (6.40 mm) | 2550 MPa | ASTM D790 |
| Flexural Strength ⁶ (Yield, 604 mm) | 68.6 MPa | ASTM D790 |

| Impact | Nominal Value Unit | Test Method |
|---------------------|--------------------|-------------|
| Notched Izod Impact | | ASTM D256 |
| -30°C, 3.20 mm | 69 J/m | |
| -30°C, 6.40 mm | 69 J/m | |
| 23°C, 3.20 mm | 250 J/m | |
| 23°C, 6.40 mm | 210 J/m | |

| Hardness | Nominal Value Unit | Test Method |
|-----------------------------|--------------------|-------------|
| Rockwell Hardness (R-Scale) | 104 | ASTM D785 |

| Thermal | Nominal Value Unit | Test Method |
|--|--------------------|-------------------------|
| Deflection Temperature Under Load | | ASTM D648 |
| 0.45 MPa, Unannealed, 6.40 mm ⁷ | 84.0 °C | |
| 0.45 MPa, Unannealed, 6.40 mm ⁸ | 76.0 °C | |
| Vicat Softening Temperature | 83.0 °C | ASTM D1525 ⁹ |
| RTI Elec | 85.0 °C | UL 746 |
| RTI Imp | 75.0 °C | UL 746 |
| RTI Str | 75.0 °C | UL 746 |



| Flammability | | Nominal Value Unit | Test Method |
|--------------|---|--------------------|-------------|
| Flame Rating | | | UL 94 |
| 1.50 mm | | V-0 | |
| 2.00 mm | • | V-0 | |
| | • | 5VB | |
| 2.50 mm | • | V-0 | |
| | • | 5VB | |
| 3.00 mm | • | V-0 | |
| | • | 5VB | |

| Injection | Nominal Value Unit |
|------------------------|--------------------|
| Drying Temperature | 70.0 to 80.0 °C |
| Drying Time | 2.0 to 4.0 hr |
| Suggested Max Moisture | < 0.010 % |
| Rear Temperature | 170 to 190 °C |
| Middle Temperature | 180 to 200 °C |
| Front Temperature | 190 to 210 °C |
| Nozzle Temperature | 200 to 230 °C |
| Processing (Melt) Temp | 200 to 230 °C |
| Mold Temperature | 40.0 to 60.0 °C |
| Back Pressure | 0.490 to 0.981 MPa |
| Screw Speed | 30 to 60 rpm |

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 1.0 mm/min

⁵ 50 mm/min

⁶ 15 mm/min

⁷ 4.6kg

⁸ 18.6kg

⁹ Rate A (50°C/h), Loading 2 (50 N)



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Where to Buy

Supplier

LG Chem Ltd.

Englewood Cliffs, NJ USA

Telephone: 201-816-2302

Web: <http://www.chemwide.com/>

Distributor

Biesterfeld Plastic GmbH

Biesterfeld Plastic GmbH is a Pan European distribution company. Contact Biesterfeld Plastic GmbH for availability of individual products by country.

Telephone: +49-40-32008-0

Web: <http://www.biesterfeld-plastic.com/>

Availability: Algeria, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Egypt, France, Germany, Greece, Hungary, Ireland, Italy, Libyan Arab Jamahiriya, Luxembourg, Mauritania, Morocco, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Switzerland, Turkey, United Kingdom

CCC Plastics

Telephone: 800-465-6917

Web: <http://www.cccplastics.com/>

Availability: Canada

Channel Prime Alliance

Telephone: 800-247-8038

Web: <http://www.channelpa.com/>

Availability: North America

Chase Plastic Services, Inc.

Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here:

<http://www.chaseplastics.com/contact/locations>

Telephone: 800-232-4273

Web: <http://www.chaseplastics.com/>

Availability: North America

GUZMAN GLOBAL S.L

Telephone: +34-963-992-400

Web: <http://www.grupoguzman.com/>

Availability: Portugal, Spain

Polymer Technology & Services, LLC

Telephone: 800-475-1701

Web: <http://www.ptslc.com/>

Availability: North America

Primeline Polymers

Telephone: 714-745-3617

Web: <http://www.primelinepolymers.com/>

Availability: North America

Resin Resource, Inc.

Telephone: 877-652-3431

Web: <http://www.resinresourceinc.com/>

Availability: North America

RESINEX Group

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.

Telephone: +32-14-672511

Web: <http://www.resinex.com/>

Availability: Europe

Southland Polymers

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Availability: Central America, North America, South America

Telko Oy

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Availability: Belarus, Denmark, Estonia, Finland, Latvia, Lithuania, Norway, Poland, Sweden, Ukraine

