

Technical Data Sheet

## Diamond Asa S225 LG

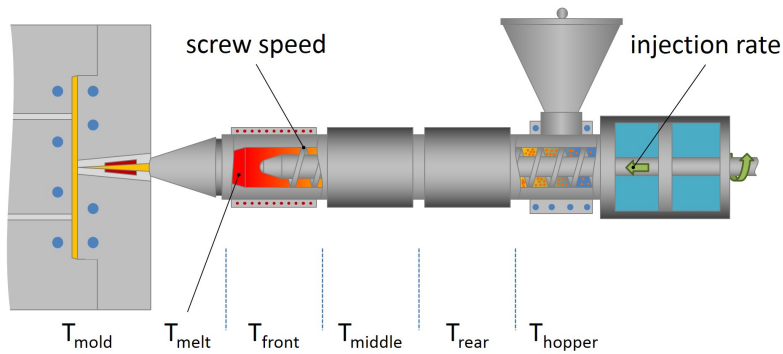
Acrylonitrile Styrene Acrylate  
LyondellBasell Industries  
Engineering Plastics

| General                                                             |                           |                        |                         |
|---------------------------------------------------------------------|---------------------------|------------------------|-------------------------|
| Features                                                            | • Good Weather Resistance | • Low Fogging          |                         |
| Agency Ratings                                                      | • EC 1907/2006 (REACH)    | • EU 2002/96/EC (WEEE) |                         |
| RoHS Compliance                                                     | • RoHS Compliant          |                        |                         |
| Forms                                                               | • Pellets                 |                        |                         |
| Processing Method                                                   | • Injection Molding       |                        |                         |
| Physical                                                            | Nominal Value (English)   | Nominal Value (SI)     | Test Method             |
| Density / Specific Gravity                                          | 1.07                      | 1.07 g/cm <sup>3</sup> | ASTM D792               |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 Kg)                           | 11 g/10 min               | 11 g/10 min            | ASTM D1238              |
| Mechanical                                                          | Nominal Value (English)   | Nominal Value (SI)     | Test Method             |
| Tensile Strength <sup>1</sup>                                       |                           |                        | ASTM D638               |
| Yield, 73°F (23°C), 0.125 In (3.18 Mm), Injection Molded            | 6200 psi                  | 42.7 MPa               |                         |
| Break, 73°F (23°C), 0.125 In (3.18 Mm), Injection Molded            | 5490 psi                  | 37.9 MPa               |                         |
| Tensile Elongation <sup>1</sup>                                     |                           |                        | ASTM D638               |
| Yield, 73°F (23°C), 0.125 In (3.18 Mm), Injection Molded            | 3.2 %                     | 3.2 %                  |                         |
| Break, 73°F (23°C), 0.125 In (3.18 Mm), Injection Molded            | 42 %                      | 42 %                   |                         |
| Flexural Modulus - Tangent <sup>2</sup>                             |                           |                        | ASTM D790               |
| 73°F (23°C), 0.125 In (3.18 Mm), Injection Molded                   | 295000 psi                | 2030 MPa               |                         |
| Impact                                                              | Nominal Value (English)   | Nominal Value (SI)     | Test Method             |
| Notched Izod Impact                                                 |                           |                        | ASTM D256               |
| 73°F (23°C), 0.125 In (3.18 Mm), Injection Molded                   | 1.5 ft·lb/in              | 81 J/m                 |                         |
| Thermal                                                             | Nominal Value (English)   | Nominal Value (SI)     | Test Method             |
| Deflection Temperature Under Load                                   |                           |                        | ASTM D648               |
| 264 Psi (1.8 Mpa), Unannealed, 0.125 In (3.18 Mm), Injection Molded | 171 °F                    | 77.2 °C                |                         |
| Vicat Softening Temperature                                         | 221 °F                    | 105 °C                 | ASTM D1525 <sup>3</sup> |

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| Injection              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 to 185 °F           | 80 to 85 °C        |
| Drying Time            | 2.0 to 4.0 hr           | 2.0 to 4.0 hr      |
| Suggested Max Moisture | 0.02 %                  | 0.02 %             |
| Suggested Shot Size    | 40 to 70 %              | 40 to 70 %         |
| Rear Temperature       | 446 to 500 °F           | 230 to 260 °C      |
| Middle Temperature     | 450 to 500 °F           | 232 to 260 °C      |
| Front Temperature      | 455 to 500 °F           | 235 to 260 °C      |
| Nozzle Temperature     | 428 to 500 °F           | 220 to 260 °C      |
| Processing (Melt) Temp | 428 to 500 °F           | 220 to 260 °C      |
| Mold Temperature       | 160 to 180 °F           | 71 to 82 °C        |
| Injection Rate         | Fast                    | Fast               |
| Back Pressure          | 75.0 to 150 psi         | 0.517 to 1.03 MPa  |

### Notes

<sup>1</sup> Type I, 2.0 in/min (51 mm/min)

<sup>2</sup> Method I (3 point load), 0.050 in/min (1.3 mm/min)

<sup>3</sup> Loading 1 (10 N)

### Notes

These are typical property values not to be construed as specification limits.