

Technical Data Sheet

Diamond Abs 2100 P

Acrylonitrile Butadiene Styrene
LyondellBasell Industries
Engineering Plastics

| General | | | |
|-------------------|------------------------|------------------------|--|
| Agency Ratings | • EC 1907/2006 (REACH) | • EU 2002/96/EC (WEEE) | |
| RoHS Compliance | • RoHS Compliant | | |
| Forms | • Powder | | |
| Processing Method | • Compounding | | |

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|-------------------------|------------------------|-------------|
| Density / Specific Gravity | 1.06 | 1.06 g/cm ³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) ¹ | | | ASTM D1238 |
| 200°c/5.0 Kg | 3.0 g/10 min | 3.0 g/10 min | |
| 230°c/3.8 Kg | 11 g/10 min | 11 g/10 min | |

| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|-------------------------|--------------------|-------------|
| Tensile Strength ² (Yield) | 7200 psi | 49.6 MPa | ASTM D638 |
| Flexural Modulus - Tangent ³ | 360000 psi | 2480 MPa | ASTM D790 |

| Impact | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---------------------------------|-------------------------|--------------------|-------------|
| Notched Izod Impact | | | ASTM D256 |
| 73°f (23°c), 0.125 In (3.18 Mm) | 4.0 ft·lb/in | 210 J/m | |

| Hardness | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------|-------------------------|--------------------|-------------|
| Rockwell Hardness (R-scale) | 104 | 104 | ASTM D785 |

| 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) | 175 °F | 79.4 °C | |
| 264 Psi (1.8 Mpa), Annealed, 0.125 In (3.18 Mm) | 205 °F | 96.1 °C | |
| Vicat Softening Temperature | 218 °F | 103 °C | ASTM D1525 ⁴ |

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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 | 0.10 % | 0.10 % |
| Rear Temperature | 374 to 482 °F | 190 to 250 °C |
| Middle Temperature | 374 to 482 °F | 190 to 250 °C |
| Front Temperature | 374 to 482 °F | 190 to 250 °C |
| Mold Temperature | 104 to 176 °F | 40 to 80 °C |
| Injection Rate | Moderate-Fast | Moderate-Fast |

Notes

- ¹ Procedure A
- ² 2.0 in/min (51 mm/min)
- ³ 0.050 in/min (1.3 mm/min)
- ⁴ Loading 1 (10 N)

Notes

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