

# Technical Datasheet

| Material Type     | PA66 | Trademark | Ecolon® | Grade Name | GF2020-BK1  |
|-------------------|------|-----------|---------|------------|---|
| Feature           |      |           |         |            | <ul style="list-style-type: none"> <li>20% Glass-Reinforced Nylon Resin (PA66)</li> </ul> |
| Material Standard |      |           |         |            | <ul style="list-style-type: none"> <li>XXXXXX</li> </ul>                                  |
| Availability      |      |           |         |            | <ul style="list-style-type: none"> <li>Asian-Pacific, America</li> </ul>                  |
| Processing method |      |           |         |            | <ul style="list-style-type: none"> <li>Injection Molding</li> </ul>                       |
| Appearance        |      |           |         |            | <ul style="list-style-type: none"> <li>Color is Optional</li> </ul>                       |
| Applications      |      |           |         |            | <ul style="list-style-type: none"> <li>Automotive and Engineering parts</li> </ul>        |

## General Properties

| No. | Properties                  | Unit              | Typical Value           | Method         | Test condition |
|-----|-----------------------------|-------------------|-------------------------|----------------|----------------|
| 1   | Filler Content              | %                 | 20                      | ISO 3451-1, -4 |                |
| 2   | Density                     | g/mL              | 1.29                    | ISO 1183       | 23 °C          |
| 3   | Melt Point                  | °C                | 260                     | ISO 3146       | DSC            |
| 4   | Tensile Strength            | MPa               | 125                     | ISO 527        | 5 mm/mm        |
| 5   | Tensile Elongation          | %                 | 3                       | ISO 527        | 5 mm/mm        |
| 6   | Flexural Strength           | MPa               | 180                     | ISO 178        | 2 mm/mm        |
| 7   | Flexural Modulus            | MPa               | 6,400                   | ISO 178        | 2 mm/mm        |
| 8   | Charpy Impact notched       | kJ/m <sup>2</sup> | 5.0                     | ISO 180        | 23 °C          |
| 9   | Heat Deflection Temperature | °C                | 235                     | ISO 75         | 1.8 MPa        |
| 10  | Material Shrinkage          | %                 | 0.6/1.0<br>(flow/cross) | ISO 294        | 23 °C, 48h     |

## Processing Conditions

|                    |  |
|--------------------|--|
| Drying condition   | 80 °C, 2-4 h   |
| Molding Temp.      | 260 - 290 °C (F), 260 - 290 °C (M), 270 - 290 °C (B) |
| Melt Temp.         | 270 - 290 °C   |
| Mold Temp.         | 70 - 90 °C   |
| Screw Speed        | 30 - 120 rpm   |
| Injection Pressure | 30 - 140 MPa   |
| Back Pressure      | 0.30 – 1.40 MPa                                      |

**Notes:** This technical data in the product brochures are typical test results for reference, and should not be defined as minimum value.