

# DPS DYN-RABSG20 BK

Acrylonitrile Butadiene Styrene  
Dynamic Polymer Solutions

| Technical Data                                                       |                                                 |                    |                        |
|----------------------------------------------------------------------|-------------------------------------------------|--------------------|------------------------|
| Product Description                                                  |                                                 |                    |                        |
| ABS, 20% glass fiber reinforced black Produced with recycled content |                                                 |                    |                        |
| General                                                              |                                                 |                    |                        |
| Material Status                                                      | • Commercial: Active                            |                    |                        |
| Literature <sup>1</sup>                                              | • <a href="#">Technical Datasheet (English)</a> |                    |                        |
| Availability                                                         | • North America                                 |                    |                        |
| Filler / Reinforcement                                               | • Glass Fiber, 20% Filler by Weight             |                    |                        |
| Recycled Content                                                     | • Yes                                           |                    |                        |
| Appearance                                                           | • Black                                         |                    |                        |
| Processing Method                                                    | • Injection Molding                             |                    |                        |
|                                                                      |                                                 |                    |                        |
| Physical                                                             | Nominal Value (English)                         | Nominal Value (SI) | Test Method            |
| Density / Specific Gravity                                           |                                                 |                    |                        |
| --                                                                   | 1.19                                            | 1.19 g/cm³         | ASTM D792              |
| 73°F (23°C)                                                          | 1.19 g/cm³                                      | 1.19 g/cm³         | ISO 1183               |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)                             | 5.0 g/10 min                                    | 5.0 g/10 min       | ASTM D1238<br>ISO 1133 |
| Mechanical                                                           | Nominal Value (English)                         | Nominal Value (SI) | Test Method            |
| Tensile Modulus                                                      | 899000 psi                                      | 6200 MPa           | ISO 527-1/10           |
| Tensile Strength                                                     |                                                 |                    |                        |
| Yield <sup>3</sup>                                                   | 12300 psi                                       | 84.6 MPa           | ASTM D638              |
| Yield                                                                | 12200 psi                                       | 84.0 MPa           | ISO 527-2/50           |
| Tensile Elongation                                                   |                                                 |                    |                        |
| Break <sup>3</sup>                                                   | 2.7 %                                           | 2.7 %              | ASTM D638              |
| Break                                                                | 2.0 %                                           | 2.0 %              | ISO 527-2/50           |
| Flexural Modulus <sup>4</sup>                                        |                                                 |                    |                        |
| --                                                                   | 673000 psi                                      | 4640 MPa           | ASTM D790              |
| --                                                                   | 841000 psi                                      | 5800 MPa           | ISO 178                |
| Flexural Strength <sup>4</sup>                                       |                                                 |                    |                        |
| --                                                                   | 14900 psi                                       | 103 MPa            | ASTM D790              |
| --                                                                   | 15200 psi                                       | 105 MPa            | ISO 178                |
| Impact                                                               | Nominal Value (English)                         | Nominal Value (SI) | Test Method            |
| Charpy Notched Impact Strength (73°F (23°C))                         | 2.6 ft·lb/in²                                   | 5.5 kJ/m²          | ISO 179                |
| Notched Izod Impact                                                  |                                                 |                    |                        |
| 73°F (23°C)                                                          | 1.2 ft·lb/in                                    | 64 J/m             | ASTM D256              |
| 73°F (23°C)                                                          | 3.4 ft·lb/in²                                   | 7.2 kJ/m²          | ISO 180                |
| Thermal                                                              | Nominal Value (English)                         | Nominal Value (SI) | Test Method            |
| Deflection Temperature Under Load                                    |                                                 |                    |                        |
| 66 psi (0.45 MPa), Unannealed                                        | 226 °F                                          | 108 °C             | ASTM D648              |
| 66 psi (0.45 MPa), Unannealed                                        | 217 °F                                          | 103 °C             | ISO 75-2/B             |
| 264 psi (1.8 MPa), Unannealed                                        | 216 °F                                          | 102 °C             | ASTM D648              |
| 264 psi (1.8 MPa), Unannealed                                        | 212 °F                                          | 100 °C             | ISO 75-2/A             |

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| Injection              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 104 to 140 °F           | 40 to 60 °C        |
| Drying Time            | 2.0 to 4.0 hr           | 2.0 to 4.0 hr      |
| Suggested Max Moisture | < 0.050 %               | < 0.050 %          |
| Processing (Melt) Temp | 455 to 500 °F           | 235 to 260 °C      |
| Mold Temperature       | 122 to 185 °F           | 50 to 85 °C        |
| Injection Rate         | Moderate-Fast           | Moderate-Fast      |
| Back Pressure          | 85.0 to 130 psi         | 0.586 to 0.896 MPa |

Notes

- <sup>1</sup> 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.
- <sup>2</sup> Typical properties: these are not to be construed as specifications.
- <sup>3</sup> 2.0 in/min (50 mm/min)
- <sup>4</sup> 0.20 in/min (5.0 mm/min)

