# DYNAMID DYN-RN6G15 HSL BK

Polyamide 6

**Dynamic Polymer Solutions**

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## Technical Data

| Product Description | | |
|---|---|---|
| Polyamide 6, 15% glass fiber reinforced, heat stabilized & lubricated black Produced with recycled content | | |
| **General** | | |
| Material Status | • Commercial: Active | |
| Literature [1] | • Technical Datasheet (English) | |
| Availability | • North America | |
| Filler / Reinforcement | • Glass Fiber, 15% Filler by Weight | |
| Additive | • Heat Stabilizer | • Lubricant |
| Recycled Content | • Yes | |
| Features | • Good Stiffness<br>• Good Strength | • Heat Stabilized<br>• Lubricated |
| Appearance | • Black | |
| Processing Method | • Injection Molding | |

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|---|---|---|
| Density / Specific Gravity | | | |
| -- | 1.21 | 1.21 g/cm³ | ASTM D792 |
| 73°F (23°C) | 1.21 g/cm³ | 1.21 g/cm³ | ISO 1183 |
| **Mechanical** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Tensile Modulus | | | |
| -- [3] | 563000 psi | 3880 MPa | ASTM D638 |
| -- | 562000 psi | 3880 MPa | ISO 527-1/10 |
| Tensile Strength | | | |
| Yield [4] | 13900 psi | 95.5 MPa | ASTM D638 |
| Yield | 13600 psi | 94.0 MPa | ISO 527-2/50 |
| Tensile Elongation | | | |
| Break [4] | 4.0 % | 4.0 % | ASTM D638 |
| Break | 3.5 % | 3.5 % | ISO 527-2/50 |
| Flexural Modulus [5] | | | |
| -- | 559000 psi | 3850 MPa | ASTM D790 |
| -- | 654000 psi | 4510 MPa | ISO 178 |
| Flexural Strength [5] | | | |
| -- | 19300 psi | 133 MPa | ASTM D790 |
| -- | 22600 psi | 156 MPa | ISO 178 |
| **Impact** | **Nominal Value (English)** | **Nominal Value (SI)** | **Test Method** |
| Charpy Notched Impact Strength (73°F (23°C)) | 1.8 ft·lb/in² | 3.7 kJ/m² | ISO 179 |
| Notched Izod Impact | | | |
| 73°F (23°C) | 1.4 ft·lb/in | 75 J/m | ASTM D256 |
| 73°F (23°C) | 4.0 ft·lb/in² | 8.4 kJ/m² | ISO 180 |





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| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|---|---|---|
| Deflection Temperature Under Load | | | |
| 66 psi (0.45 MPa), Unannealed | 405 °F | 207 °C | ASTM D648 |
| 66 psi (0.45 MPa), Unannealed | 414 °F | 212 °C | ISO 75-2/B |
| 264 psi (1.8 MPa), Unannealed | 387 °F | 197 °C | ASTM D648 |
| 264 psi (1.8 MPa), Unannealed | 370 °F | 188 °C | ISO 75-2/A |
| Peak Melting Temperature | 430 °F | 221 °C | ASTM D3418<br>ISO 3146 |

| Injection | Nominal Value (English) | Nominal Value (SI) |
|---|---|---|
| Drying Temperature | 140 to 185 °F | 60 to 85 °C |
| Drying Time | 3.0 to 5.0 hr | 3.0 to 5.0 hr |
| Suggested Max Moisture | < 0.15 % | < 0.15 % |
| Processing (Melt) Temp | 482 to 536 °F | 250 to 280 °C |
| Mold Temperature | 131 to 176 °F | 55 to 80 °C |
| Injection Rate | Fast | Fast |
| Back Pressure | 80.0 to 130 psi | 0.552 to 0.896 MPa |

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

[3] 0.39 in/min (10 mm/min)

[4] 2.0 in/min (50 mm/min)

[5] 0.20 in/min (5.0 mm/min)



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