

DYNAMID DYN-RN6G50 HSL BK

Polyamide 6
Dynamic Polymer Solutions

Technical Data

Product Description			
Polyamide 6, 50% 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, 50% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	
Recycled Content	• Yes		
Features	• Good Stiffness • Good Strength	• Heat Stabilized • Lubricated	
Appearance	• Black		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity			
--	1.55	1.55 g/cm³	ASTM D792
73°F (23°C)	1.55 g/cm³	1.55 g/cm³	ISO 1183
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
-- ³	1.85E+6 psi	12800 MPa	ASTM D638
--	1.85E+6 psi	12800 MPa	ISO 527-1/10
Tensile Strength			
Yield ⁴	30000 psi	207 MPa	ASTM D638
Yield	29900 psi	206 MPa	ISO 527-2/50
Tensile Elongation			
Break ⁴	3.0 %	3.0 %	ASTM D638
Break	2.6 %	2.6 %	ISO 527-2/50
Flexural Modulus ⁵	1.85E+6 psi	12800 MPa	ASTM D790 ISO 178
Flexural Strength ⁵			
--	43000 psi	296 MPa	ASTM D790
--	40200 psi	277 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	4.1 ft·lb/in²	8.7 kJ/m²	ISO 179
Notched Izod Impact			
73°F (23°C)	2.5 ft·lb/in	130 J/m	ASTM D256
73°F (23°C)	7.1 ft·lb/in²	15 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	426 °F	219 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	424 °F	218 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	415 °F	213 °C	ASTM D648 ISO 75-2/A
Peak Melting Temperature	430 °F	221 °C	ASTM D3418 ISO 3146

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 194 °F	70 to 90 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 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)