

DYNAMID DYN-RN6G20 HSL BK

Polyamide 6
Dynamic Polymer Solutions

Technical Data				
Product Description				
Polyamide 6, 20% 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, 20% 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				
--		1.26	1.26 g/cm³	ASTM D792
73°F (23°C)		1.26 g/cm³	1.26 g/cm³	ISO 1183
Mechanical		Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus				
-- ³		857000 psi	5910 MPa	ASTM D638
--		856000 psi	5900 MPa	ISO 527-1/10
Tensile Strength				
Yield ⁴		18000 psi	124 MPa	ASTM D638
Yield		20600 psi	142 MPa	ISO 527-2/50
Tensile Elongation				
Break ⁴		5.0 %	5.0 %	ASTM D638
Break		3.5 %	3.5 %	ISO 527-2/50
Flexural Modulus ⁵				
--		850000 psi	5860 MPa	ASTM D790
--		780000 psi	5380 MPa	ISO 178
Flexural Strength ⁵				
--		26500 psi	183 MPa	ASTM D790
--		26400 psi	182 MPa	ISO 178
Impact		Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))		1.7 ft·lb/in²	3.5 kJ/m²	ISO 179
Notched Izod Impact				
73°F (23°C)		1.3 ft·lb/in	69 J/m	ASTM D256
73°F (23°C)		3.7 ft·lb/in²	7.8 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	421 °F	216 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	426 °F	219 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	396 °F	202 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	385 °F	196 °C	ISO 75-2/A
Peak Melting Temperature	430 °F	221 °C	ASTM D3418 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)

