

DYNAMID DYN-RN6GM40 HSL BK

Polyamide 6
Dynamic Polymer Solutions

Technical Data			
Product Description			
Polyamide 6, 40% glass fiber/mineral 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\Mineral, 40% Filler by Weight		
Additive	• Heat Stabilizer	• Lubricant	
Recycled Content	• Yes		
Features	• Heat Stabilized	• Lubricated	
Appearance	• Black		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity			
--	1.46	1.46 g/cm³	ASTM D792
73°F (23°C)	1.46 g/cm³	1.46 g/cm³	ISO 1183
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
-- ³	1.03E+6 psi	7120 MPa	ASTM D638
--	1.03E+6 psi	7120 MPa	ISO 527-1/10
Tensile Strength			
Yield ⁴	16400 psi	113 MPa	ASTM D638
Yield	16200 psi	112 MPa	ISO 527-2/50
Tensile Elongation			
Break ⁴	8.0 %	8.0 %	ASTM D638
Break	5.0 %	5.0 %	ISO 527-2/50
Flexural Modulus ⁵			
--	1.02E+6 psi	7040 MPa	ASTM D790
--	943000 psi	6500 MPa	ISO 178
Flexural Strength ⁵			
--	25100 psi	173 MPa	ASTM D790
--	22500 psi	155 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	1.1 ft·lb/in²	2.3 kJ/m²	ISO 179
Notched Izod Impact			
73°F (23°C)	1.0 ft·lb/in	54 J/m	ASTM D256
73°F (23°C)	2.9 ft·lb/in²	6.1 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	437 °F	225 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	408 °F	209 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	396 °F	202 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	372 °F	189 °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 176 °F	60 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	< 0.15 %	< 0.15 %
Processing (Melt) Temp	482 to 536 °F	250 to 280 °C
Mold Temperature	122 to 176 °F	50 to 80 °C
Injection Rate	Moderate	Moderate
Back Pressure	80.0 to 120 psi	0.552 to 0.827 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)

