

DYNAMID DYN-RN6HI HSL BK

Polyamide 6
Dynamic Polymer Solutions

Technical Data			
Product Description			
Polyamide 6, high impact modified, heat stabilized & lubricated black Produced with recycled content			
General			
Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
Availability	• North America		
Additive	• Heat Stabilizer	• Impact Modifier	• Lubricant
Recycled Content	• Yes		
Features	• Abrasion Resistant • Chemical Resistant • Good Processability	• Heat Stabilized • High Impact Resistance • Impact Modified	• Low Temperature Impact Resistance • Lubricated
Appearance	• Black		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity			
--	1.08	1.08 g/cm³	ASTM D792
73°F (23°C)	1.08 g/cm³	1.08 g/cm³	ISO 1183
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
-- ³	294000 psi	2030 MPa	ASTM D638
--	294000 psi	2030 MPa	ISO 527-1/10
Tensile Strength			
Yield ⁴	6420 psi	44.3 MPa	ASTM D638
Yield	6240 psi	43.0 MPa	ISO 527-2/50
Tensile Elongation			
Break ⁴	45 %	45 %	ASTM D638
Break	38 %	38 %	ISO 527-2/50
Flexural Modulus ⁵			
--	291000 psi	2010 MPa	ASTM D790
--	239000 psi	1650 MPa	ISO 178
Flexural Strength ⁵			
--	11000 psi	75.8 MPa	ASTM D790
--	9430 psi	65.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	No Break	No Break	ISO 179
Notched Izod Impact			
73°F (23°C)	14 ft·lb/in	720 J/m	ASTM D256
73°F (23°C)	No Break	No Break	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	289 °F	143 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	266 °F	130 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	129 °F	54.0 °C	ASTM D648 ISO 75-2/A
Peak Melting Temperature	428 °F	220 °C	ASTM D3418 ISO 3146

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	122 to 158 °F	50 to 70 °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	455 to 509 °F	235 to 265 °C
Mold Temperature	113 to 149 °F	45 to 65 °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)

