

DYNAMID DYN-RN6G45 HSL BK

Polyamide 6
Dynamic Polymer Solutions

Technical Data					
Product Description					
Polyamide 6, 45% 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, 45% 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					
--	1.50	1.50 g/cm ³	ASTM D792		
73°F (23°C)	1.50 g/cm ³	1.50 g/cm ³	ISO 1183		
Mechanical					
	Nominal Value (English)	Nominal Value (SI)	Test Method		
Tensile Modulus					
-- ³	1.52E+6 psi	10400 MPa	ASTM D638		
--	1.51E+6 psi	10400 MPa	ISO 527-1/10		
Tensile Strength					
Yield ⁴	28500 psi	197 MPa	ASTM D638		
Yield	28300 psi	195 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					
--	1.50E+6 psi	10300 MPa	ASTM D790		
--	1.56E+6 psi	10800 MPa	ISO 178		
Flexural Strength ⁵					
--	41500 psi	286 MPa	ASTM D790		
--	37700 psi	260 MPa	ISO 178		
Impact					
	Nominal Value (English)	Nominal Value (SI)	Test Method		
Charpy Notched Impact Strength (73°F (23°C))	4.9 ft·lb/in ²	10 kJ/m ²	ISO 179		
Notched Izod Impact					
73°F (23°C)	2.1 ft·lb/in	110 J/m	ASTM D256		
73°F (23°C)	6.0 ft·lb/in ²	13 kJ/m ²	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	457 °F	236 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	426 °F	219 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	426 °F	219 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	410 °F	210 °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	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)

