

DYNAMID DYN-RN66G45 HSL BK

Polyamide 66
Dynamic Polymer Solutions

Technical Data				
Product Description				
Polyamide 66, 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				
--		1.51	1.51 g/cm³	ASTM D792
73°F (23°C)		1.51 g/cm³	1.51 g/cm³	ISO 1183
Mechanical		Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus				
-- ³		1.88E+6 psi	13000 MPa	ASTM D638
--		1.88E+6 psi	13000 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				
--		1.65E+6 psi	11400 MPa	ASTM D790
--		1.51E+6 psi	10400 MPa	ISO 178
Flexural Strength ⁵				
--		42000 psi	290 MPa	ASTM D790
--		42800 psi	295 MPa	ISO 178
Impact		Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))		3.1 ft·lb/in²	6.6 kJ/m²	ISO 179
Notched Izod Impact				
73°F (23°C)		1.8 ft·lb/in	96 J/m	ASTM D256
73°F (23°C)		5.1 ft·lb/in²	11 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	498 °F	259 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	500 °F	260 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	484 °F	251 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	489 °F	254 °C	ISO 75-2/A
Peak Melting Temperature	504 °F	262 °C	ASTM D3418 ISO 3146

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	194 to 230 °F	90 to 110 °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	536 to 581 °F	280 to 305 °C
Mold Temperature	131 to 176 °F	55 to 80 °C
Injection Rate	Fast	Fast
Back Pressure	80.0 to 140 psi	0.552 to 0.965 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)

