

DYNAMID DYN-N6G45L NC

Polyamide 6
Dynamic Polymer Solutions

Technical Data			
Product Description			
Polyamide 6, 45% glass fiber reinforced & lubricated natural			
General			
Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber, 45% Filler by Weight		
Additive	• Lubricant		
Features	• Good Stiffness	• Good Strength	• Lubricated
Appearance	• Natural Color		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity			
--	1.50	1.50 g/cm³	ASTM D792
73°F (23°C)	1.50 g/cm³	1.50 g/cm³	ISO 1183
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
-- ³	1.76E+6 psi	12100 MPa	ASTM D638
--	1.76E+6 psi	12100 MPa	ISO 527-1/10
Tensile Strength			
Yield ⁴	30500 psi	210 MPa	ASTM D638
Yield	30300 psi	209 MPa	ISO 527-2/50
Tensile Elongation			
Break ⁴	3.0 %	3.0 %	ASTM D638
Break	3.0 %	3.0 %	ISO 527-2/50
Flexural Modulus ⁵			
--	1.75E+6 psi	12100 MPa	ASTM D790
--	1.80E+6 psi	12400 MPa	ISO 178
Flexural Strength ⁵			
--	45000 psi	310 MPa	ASTM D790
--	43500 psi	300 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	5.6 ft·lb/in²	12 kJ/m²	ISO 179
Notched Izod Impact			
73°F (23°C)	2.8 ft·lb/in	150 J/m	ASTM D256
73°F (23°C)	8.0 ft·lb/in²	17 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	460 °F	238 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	428 °F	220 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	430 °F	221 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	414 °F	212 °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	176 to 212 °F	80 to 100 °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	500 to 554 °F	260 to 290 °C
Mold Temperature	149 to 194 °F	65 to 90 °C
Injection Rate	Fast	Fast
Back Pressure	100 to 150 psi	0.689 to 1.03 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)

