

DYNAMID DYN-N6HIL NC

Polyamide 6
Dynamic Polymer Solutions

Technical Data			
Product Description			
Polyamide 6, high impact modified & lubricated natural			
General			
Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
Availability	• North America		
Additive	• Impact Modifier	• Lubricant	
Features	• Abrasion Resistant • Chemical Resistant • Good Processability	• High Impact Resistance • Impact Modified • Low Temperature Impact Resistance	• Lubricated
Appearance	• Natural Color		
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	259000 psi	1780 MPa	ASTM D638
--	258000 psi	1780 MPa	ISO 527-1/10
Tensile Strength			
Yield ⁴	6880 psi	47.4 MPa	ASTM D638
Yield	6670 psi	46.0 MPa	ISO 527-2/50
Tensile Elongation			
Break ⁴	50 %	50 %	ASTM D638
Break	40 %	40 %	ISO 527-2/50
Flexural Modulus ⁵			
--	256000 psi	1770 MPa	ASTM D790
--	276000 psi	1900 MPa	ISO 178
Flexural Strength ⁵			
--	9960 psi	68.7 MPa	ASTM D790
--	10900 psi	75.0 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)	16 ft·lb/in	850 J/m	ASTM D256
73°F (23°C)	No Break	No Break	ISO 180

DYNAMID DYN-N6HIL NC

Polyamide 6

Dynamic Polymer Solutions

PROSPECTOR®

www.ulprospector.com

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	293 °F	145 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	270 °F	132 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	133 °F	56.0 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	131 °F	55.0 °C	ISO 75-2/A
Peak Melting Temperature	428 °F	220 °C	ASTM D3418 ISO 3146

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	140 to 185 °F	60 to 85 °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	473 to 527 °F	245 to 275 °C
Mold Temperature	122 to 167 °F	50 to 75 °C
Injection Rate	Moderate	Moderate
Back Pressure	90.0 to 130 psi	0.621 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)

