

MEXMID A HI90 H NC

Description	Unreinforced, Super Toughened, Polyamide 66 medium viscosity, heat stabilized			
Color	Natural Color		Additional formulations	
Applications: Automotive, furniture, domestic appliances, sporting goods and construction industry.			HR - Resistance to hydrolysis	EL - High impact
			Viscosity from 2.4 to 3.3	IB - Hybrid Mineral+GF
Processing	Injection		UL94 - Flame retardant	UV - Light stabilized
Mechanical Properties		Values	Unit	ISO
Density		1.08	g/cm ³	1183
Filler Content		-	%	3451
Relative viscosity (1% in 96% H ₂ SO ₄)		2.7 ± 0.10	-	307
Melting Point (DSC)		262	° C	3146
Mechanical Properties		Dry/Wet	Unit	ISO
Tensile elongation at break		40/50	%	527
Tensile strength at yield		50/43	MPa	527
Flexural Modulus		1900/800	MPa	178
IZOD Impact strength, notched	(23° C)	80/110	KJ/m ²	180 1eA
Thermal Properties		Values	Unit	ISO
HDT method A (1.820 MPa)		65	° C	75-1
Flammability		Values		
Flame rating at 3.2 mm		HB		UL94
Processing Conditions		Values		
Drying	4-6h/90° C	Suggeste max moisture	0.15	%
Hopper	270 ÷ 280° C	Min temperture	270	° C
Front	280 ÷ 290° C	Max temperture	320	° C
Middle	280 ÷ 290° C	Injection rate	High	
Rear	295 ÷ 305° C	Injection pressure	40 ÷ 120	MPa
Nozzle	285 ÷ 300° C	Injection time	3 ÷ 15	Sec.
Hot Runner Temp,	295 ÷ 320° C	Screw Back	3,5	Bar
Moulds	80 - 120° C	Cooling time	30 ÷ 90	Sec.

Due to the high moisture absorption of PA66, special attention should be given to drying before processing. If the humidity exceeds 0.2%, it is recommended to dry in hot air at temperatures above 80° C for 8 hours. If the material has been exposed to the air for more than 8 hours, vacuum drying at 105° C for at least 8 hours is advised.

Melting Temperature: 270-280° C.

Mold temperature significantly affects crystallinity, which, in turn, impacts the mechanical properties of the plastic parts. It is recommended to set the mold temperature at 80~90° C. For thin-walled, longer-flow plastic parts, such as the nylon cable tie production, a higher mold temperature is also recommended. Increasing the mold temperature can enhance the strength and rigidity of the plastic parts but reduces toughness.

Injection Pressure: Generally between 750-1250 bar (depending on the material and product design).

Injection Speed: High-speed (slightly reduced for reinforced materials).

Due to the short solidification time of PA66, the gate's position is crucial. The gate aperture should not be smaller than 0.5*t (where t is the thickness of the plastic part). If using a hot runner, the gate size should be slightly smaller than with a conventional runner, as the hot runner helps prevent premature solidification of the material. If using a submerged gate, the minimum diameter of the gate should be 0.75mm.

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