

MEXMID A GF50 H NC

Description	Polyamide 66 medium viscosity with 35% glass fiber reinforced, heat stabilized		
Color	Natural Color	Additional formulations	
Processing	Injection	HR - Resistance to hydrolysis	EL - High impact
Norm	-	Viscosity from 2.4 to 3.3	IB - Hybrid Mineral+GF
Colors :	All colors	UL94 - Flame	UV - Light stabilized

Applications: Lamp socket housings, cooling fans, insulating profile for aluminium window frames, water containers for automotive cooling systems, as well as electrically insulating parts.

Mechanical Properties	Values	Unit	ISO
Density	1,56	g/cm ³	1183
Filler Content	50	%	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	2,5/5	MPa	527-2
Tensile strength at break	205/145	MPa	178
Flexural Modulus	12500/10500	MPa	178
IZOD Impact strength, notched (23° C)	16/18	KJ/m ²	180 1eA

Thermal Properties	Values	Unit	ISO
HDT method A (1.820 MPa)	256	° 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: 280-300° C. For reinforced varieties, the melting temperature is 290-310° 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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