

MEXMID A GF/40 H BK

PA66 GF40 is a 40% glass fiber reinforced nylon 66 compound known for its exceptional stiffness, mechanical strength, and dimensional stability, heat stabilized. It is commonly used as a metal replacement material in demanding industries such as automotive, electrical, industrial machinery, and power tools.

Form	Granules				
Color available	All color				
Processing method	Injecton				
Features	Lubricated	Heat stabilized			
Additive					
Available	Resistant to hydrolysis	Resistant to metals	Colored		
According or exceeded	VW TL 50127-PA66-009				
According or exceeded					
According or exceeded					
Physical properties		ASTM	ISO	Unit	Value
Description	-	1043	-	PA66GF40	
Density	D1505	1183	g/cm ³	1.46	
Ash content	D2584	3451	%	40	
Linear molds shrinkage	D955	294-4	%	0.3 ÷ 0.4	
Relative Viscosity (RV) 1% [m/v] in 96% [m/m] sulfuric acid	-	307	-	2.7	
Viscosity Number (VN) 0,5% [m/v] in 96% [m/m] sulfuric acid	-	307	ml/g	149	
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	-	1133	gr/10'	-	
Mechanical properties					Dry/Wet
Tensile strength at yield	D638	527	MPa	230/165	
Tensile strength at break	D638	527	MPa	-	
Tensile elongation at break	D638	527	%	3/5	
Tensile modulus	D638	527	MPa	15000/11000	
Flexural stress	D790	178	MPa	320/240	
Flexural modulus	D790	178	MPa	14000/10000	
IZOD impact strength, notched 23°C	-	ISO 180 1eA	kJ/m ²	15/23	
IZOD impact strength, notched -30°C	-	ISO 180 1eA	kJ/m ³	-	
Charpy impact strength, unnotched 23°C	-	ISO 179 1eA	kJ/m ²	-	
Thermal properties					
Vicat Method B50 (50N/50°C)	D1525	306	°C	-	
H.D.T. method B (0.45MPa)	D647	75	°C	255	
H.D.T. method A (1.82 MPa)	D648	75	°C	245	
Aging test (150°C)	-	-	hrs	> 200	
Flammability properties					
Flame rating 1.6 mm	UL 94	UL 94	Class	HB	
Flame rating 3.2 mm	UL 94	UL 94	Class	HB	
Automotive materials (Thickness >=1 mm)	FMVSS 302	3795	mm/min	< 100	
Processing conditions					
Rear temperature	-	-	°C	280 ÷ 290	
Middle temperature	-	-	°C	280 ÷ 290	
Front temperature	-	-	°C	280 ÷ 295	
Nozzle temperature	-	-	°C	295 ÷ 305	
Molds temperature	-	-	°C	80 ÷ 90	
Injection Pressure	-	-	MPa	3.50 ÷ 12.5	
Injection rate	-	-	-	Fast	
Back Pressure	-	-	MPa	0.2 ÷ 3	
Ejection emperature	-	-	°C	195	
Drying (Optional)	-	-	hrs / °C	2 ÷ 4 h - 80°C	
Suggested Max Moisture	-	-	%	0.05	