Provisional technical datasheet

MEXMID A GF/20 H BK

PA66 GF20 is a 20% 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 avalaible	All color			
Processing method	Injecton			
Features	Lubricated	Heat stabilized		
Additive				
Available	Resistant to hydrolysis		Resistant to metals	Colored
According or exceeded	VW TL 50127-PA66-005			
According or exceeded				
According or exceeded				

Physical properties	ASTM	ISO	Unit	Value
Description	-	1043	-	PA66GF20
Density	D1505	1183	g/cm^3	1.27
Ash content	D2584	3451	%	20
Linear molds shrinkage	D955	294-4	%	0.3 ÷ 0.5
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	145
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	-	1133	gr/10'	-
Mechanical properties				**Dry/Wet**
Tensile strength at yield	D638	527	MPa	165/105
Tensile strength at break	D638	527	MPa	-
Tensile elongation at break	D638	527	%	3/4
Tensile modulus	D638	527	MPa	8000/5700
Flexural stress	D790	178	MPa	210/170
Flexural modulus	D790	178	MPa	6000/3800
IZOD impact strength, notched 23°C	-	ISO 180 1eA	kJ/m^2	7/12
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	252
H.D.T. method A (1.82 MPa)	D648	75	°C	242
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 (Thikness >=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