Provisional technical datasheet

MEXMID A 27 EL7-H BK

PA66 high impact compound known for its exceptional stiffness, impact strength, and dimensional stability, heat stabilized. It is commonly 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	GMW16447P-PA66-T3	GMP.PA66.021	FORD ESA-M4D379-A	
According or exceeded	VW TL 50127-PA66-002	Stellantis MS DB 41-CPN 2424	WSK-M4D666-A/A2	
According or exceeded	Stellantis MS DB 41-CPN1826	Stellantis MS DB 41-CPN 2565	GMP.PA66.062	

Physical properties	ASTM	ISO	Unit	Value
Description	-	1043	-	PA66-HI
Density	D1505	1183	g/cm^3	1.14
Ash content	D2584	3451	%	-
Linear molds shrinkage	D955	294-4	%	1.3 ÷ 2.2
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	143
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	-	1133	gr/10'	-
Mechanical properties				**Dry/Wet**
Tensile strength at yield	D638	527	MPa	50
Tensile strength at break	D638	527	MPa	-
Tensile elongation at break	D638	527	%	60
Tensile modulus	D638	527	MPa	1900/650
Flexural stress	D790	178	MPa	100/40
Flexural modulus	D790	178	MPa	1850/600
IZOD impact strength, notched 23°C	-	ISO 180 1eA	kJ/m^2	70/90
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	200
H.D.T. method A (1.82 MPa)	D648	75	°C	95
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