Provisional technical datasheet

MEXMID B 27 EL70-H BK

PA 6, Unfilled, heat stabilised, has mechanical and physical properties such as high mechanical strength.

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 50125-PA6-001	Chrysler MS-DB-41 CPN1899		FORD ESB-M4D178 A-2	
According or exceeded	FORD ESF-M4D423-A	FORD ESF MD4D-82-A		GMP.PA6.005	
According or exceeded	FORD ESB-M4D178 A-2	GMP.PA6.005			

Physical properties	ASTM	ISO	Unit	Value
Description	-	1043	-	PA6
Density	D1505	1183	g/cm^3	1.13
Ash content	D2584	3451	%	-
Linear molds shrinkage	D955	294-4	%	0.8 ÷ 1.5
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	143
Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	D1238	1133	gr/10'	-
Mechanical properties				**Dry/Wet**
Tensile strength at yield	D638	527	MPa	75/48
Tensile strength at break	D638	527	MPa	-
Tensile elongation at break	D638	527	%	2
Tensile modulus	D638	527	MPa	3200/1200
Flexural stress	D790	178	MPa	90
Flexural modulus	D790	178	MPa	2800/1050
IZOD impact strength, notched 23°C	-	ISO 180 1eA	kJ/m^2	5/13
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	160
H.D.T. method A (1.82 MPa)	D648	75	°C	55
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	250 ÷ 255
Middle temperature	-	-	°C	250 ÷ 255
Front temperature	-	-	°C	250 ÷ 255
Nozzle temperature	-	-	°C	250 ÷ 255
Molds temperature	-	-	°C	80 ÷ 90
Injection Pressure	-	-	MPa	3.50 ÷ 12.5
Injection rate	-	-	-	Fast
Back Pressure	-	-	MPa	0.2 ÷ 3
Ejection emperature	-	-	°C	155
Drying (Optional)	-	-	hrs / °C	2 ÷ 4 h - 80°C
Suggested Max Moisture	-	-	%	0.05