Provisional technical datasheet

MEXMID B GF/15 H BK

PA6 15% glass fiber reinforced, pigmented black, injection molding grade for highly rigid, dimensionally stable components which are resistant to high temperature aging and have improved retention of properties in a hot water environment. PA6 grade for housings with enhanced impact resistance. Typical applications include automotive clutch and accelerator pedals.

Form	Granules			
Color avalaible	All color			
Processing method	Injecton			
Features	Lubricated	Heat stabilized		
Additive				
According or exceeded	GM GMP.PA6.029 Color: Black	FORD WSK-M4D665-A	GM GMW16582P-PA6-GF15 Color: Black	
According or exceeded		FORD WSK-M4D665-A2		
According or exceeded				

Physical properties	ASTM	ISO	Unit	Value
Description	-	1043	-	PA6-GF15
Density	D1505	1183	g/cm^3	1.23
Ash content	D2584	3451	%	15
Linear molds shrinkage	D955	294-4	%	0.4 ÷ 0.6
Relative Viscosity (RV) 1% [m/v] in 96% [m/m] sulfuric acid	-	307	-	2.7
er (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'	70
Mechanical properties				**Dry/Wet**
Tensile strength at yield	D638	527	MPa	-
Tensile strength at break	D638	527	MPa	130/75
Tensile elongation at break	D638	527	%	3
Tensile modulus	D638	527	MPa	5800/3500
Flexural stress	D790	178	MPa	210/150
Flexural modulus	D790	178	MPa	5200/2700
IZOD impact strength, notched 23°C	-	ISO 180 1eA	kJ/m^2	8/20
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	215
H.D.T. method A (1.82 MPa)	D648	75	°C	190
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 ÷ 260
Middle temperature	-	-	°C	260 ÷ 270
Front temperature	-	-	°C	260 ÷ 270
Nozzle temperature	-	-	°C	270÷ 280
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