## ASTALOY™ MB2106

## Polycarbonate

Marplex Australia Pty. Ltd.

## Message:

ASTALOY<sup>™</sup> MB2106 is an alloy of Polycarbonate (PC) and Polyethylene Terephtalate (PET) which is suited to injection moulding applications. Offering an exceptional combination of toughness, heat resistance, chemical resistance, rigidity, UV resistance and and processability, typical applications include automotive exterior door handles, outside use electric pump housings, automotive bumper bars and electrical switch junction boxes. Note: The letters "U" or "W" indicate UV stabilisation has been added [ ie: ASTALOY<sup>™</sup> MB2106U ].

General Information				
Features	Good Chemical Resistance			
	Good Processability			
	Good Stiffness			
	Good Toughness			
	Good UV Resistance			
	Medium Heat Resistance			
Uses	Automotive Applications			
	Automotive Bumper			
	Automotive Exterior Parts			
	Electrical/Electronic Applications			
	Handles			
	Housings			
	Pump Parts			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.22	g/cm³	ASTM D792	
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	14	g/10 min	ASTM D1238	
Molding Shrinkage - Flow <sup>1</sup> (3.00 mm)	0.80	%	ASTM D955	
Water Absorption (24 hr)	0.20	%	ASTM D570	
Hardness	Nominal Value	Unit	Test Method	
Rockwell Hardness (R-Scale)	123		ASTM D785	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength <sup>2</sup> (3.20 mm)	62.0	MPa	ASTM D638	
Tensile Elongation <sup>3</sup> (Break, 3.20 mm)	120	%	ASTM D638	
Flexural Modulus <sup>4</sup> (6.40 mm)	2350	MPa	ASTM D790	
Flexural Strength <sup>5</sup> (6.40 mm)	88.0	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	
Notched Izod Impact (3.20 mm)	850	J/m	ASTM D256	
Gardner Impact (3.20 mm)	> 85.0	J	ASTM D3029	

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.40 mm	148	°C	
1.8 MPa, Unannealed, 6.40 mm	131	°C	
CLTE - Flow	5.5E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	ASTM D257
Dielectric Constant	2.10		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.60 mm)	НВ		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	120 to 125	°C	
Drying Time	4.0 to 6.0	hr	
Rear Temperature	245 to 265	°C	
Middle Temperature	260 to 280	°C	
Front Temperature	275 to 295	°C	
Processing (Melt) Temp	270 to 300	°C	
Mold Temperature	60.0 to 110	°C	
Injection Pressure	60.0 to 140	MPa	
Injection Rate	Moderate		
Back Pressure	0.100 to 0.500	MPa	
Screw Speed	40 to 60	rpm	
Clamp Tonnage	4.0 to 8.0	kN/cm²	
NOTE			
1.	100 mm diameter disc		
2.	20 mm/min		
3.	20 mm/min		
4.	2.8 mm/min		
5.	2.8 mm/min		

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