

ALPASE M-1

ALUMINUM MOLD PLATE

DEVELOPED FOR THE PLASTIC AND MOLDING INDUSTRIES

M-1 APPLICATIONS

Injection Molding: Thermal conductivity 3 to 5 times greater than steel allowing for reduced cycle times - also works with high temperature plastics when wrought aluminum could fail

Structural Foam Molding: Dimensional stability and uniform hardness of M-1 is ideal for structural foam molding.

Composite Molds: Can offer higher mechanical properties at the molding temperatures required - at elevated temperatures it will also regain its mechanical properties after cycle where wrought aluminums could have permanent loss

Tire Molds: industry leading thermal conductivity results in lower cycle times which make M-1 the perfect alloy.

R.I.M. Molding: Proven high thermal fatigue properties of M-1 aluminum mold plate make it the number one choice for R.I.M. molding.

R.T.M. Molding: Unique combination of hardness thermal fatigue resistance, polish-ability and weld-ability has made M-1 the specified choice for R.T.M. molds.

Rubber Molds: From simple mat molds to sophisticated aerospace parts, the dense grain structure in combination with dimensional stability, make M-1 your number one choice.

Blow Molding: M-1 is best used for blow molding due to its high Brinell hardness and high thermal conductivity.

Rotational Molds: Size availability along with machining advantages make M-1 the best along with most cost effective choice.

M-1 TYPICAL PROPERTIES

Typical Tensile Strength	38 ksi	Coefficient of Expansion	12.9x10 ⁻⁶ (68-392°F)
Typical Yield	20 ksi	Electrical Conductivity	39% (I.A.C.S.)
Typical Elongation	7% - 9%	Microstructure	Vacuum Tight
Brinell Hardness	85 HB	Thermal Conductivity	95 Btu/ft x h x °F
Density	0.101 lb/in ³	Modulus of Elasticity	10.8 KSI x 10 ⁶

Information provided does not imply guarantee of properties or capability of manufacturing or use.

New Technologies
In Aluminum



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