



Howard Precision Metals, Inc.

Authorized Distributor of Alphase Mold Products

**ALPASE**

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*New Technologies  
In Aluminum*

## ALPASE ANNOUNCEMENT

*Alphase introduces our newest product offering*

### **M-5 Aluminum Mold Plate™**

Since 1941 Alphase had lead the way in the evolution of cast aluminum plate products for the manufacturing, tooling and mold industries. We now offer M-5 Aluminum Mold Plate as an additional material choice for the general mold industry. M-5 combines our superior M-1 (2618 alloy) manufacturing technology with a lower strength, density and hardness 5000 series alloy product. M-5 presents a savings through its lower density leading to a weight reduction. Is this the right product for your application? - You decide!

### **M-5 PRODUCT FEATURES AND BENEFITS**

**Density** - M-5 offers a very tight grain structure that is ultrasonically inspected for superior quality.

**Machinability** - M-5 is rated lower than our M-1 but the same as other 5000 series cast products.

**Welding Characteristics** - Excellent results using 5000 series filler wire.

**Corrosion Resistance** - Superior 5000 series alloy characteristics.

**Brinell Hardness** - Consistent throughout the entire plate regardless of size.

**Dimensional Stability** - Specially cast and stress relieved, M-5 maintains dimensional stability through the machining process.

**Anodizing** - Responds excellent to anodizing and most other commercial coatings.

**Scrap Value** - Higher 5000 series market value.

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### **M-5 APPLICATIONS**

M-5 Aluminum Mold Plate is used in many different types of mold designs and molding processes. When considering applications, it is important for designers to consider all the material choices available in the size requirements. M-5 has been used in many mold applications including Injection Molds, Blow Molds, Compression Molds, Vacuum Form Molds, Structural Foam Molds and others. These molding methods are very diverse and require proper application analysis. Other proven markets for M-5 include Fixtures, Tooling, Robotics, Medical Equipment and many others. For assistance in evaluating your material options, please take advantage of our unsurpassed years of cast aluminum plate experience by calling our knowledgeable sales staff.

## M-5 ALUMINUM MOLD PLATE™

### Engineering Data

#### Typical Properties

Typical Tensile Strength	38,000 psi
Typical Yield Strength	18,000 psi
Typical Elongation	15 %
Typical Hardness	65 HB
Density	.096 lb/in <sup>3</sup>
Coefficient of Expansion	13.2 x 10 <sup>-6</sup>
Electrical Conductivity	29% IACS
Thermal Conductivity	810 English Units (77°F)
Modulus of Elasticity	10.3 KSI x 10 <sup>3</sup>

#### Additional Information

Surface Condition	Machined Top & Bottom to + .125"/-0 on thickness
Width & Length	Saw Cut Sides to + .250"/-0
Thickness	Available from 2" thick up to 24" thick
Widths	Available up to 63" wide (varies by thickness)
Lengths	Available up to 180" long (varies by thickness)

### Contact Information

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*Alpase sells all of our products through our authorized distributors.  
Call today and let our knowledgeable sales staff assist you in making  
an informed material choice for your cast aluminum plate needs.*

*Howard Precision Metals is an authorized distributor  
of Alpase Mold Products.*

*Please call us at 414-355-9611 for more information.*