

# **Móz Metal Laminates Technical Information**



*Móz Designs, Inc.*

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## **GENERAL WARRANTY**

Due to the production process, no two sheets are exactly alike. Some surface irregularities as well as color and pattern variations will appear. We recommend that you inspect the material before cutting or mounting by simply lifting up the edge of the protective mask and laying it back down. If any material proves to be defective, Móz Designs will be liable for the cost of that material only. In order to prove material defective a sample must be provided to Móz Designs for review. No other warranty is expressed or implied.

## **MATERIALS**

Móz Metals are most commonly produced from .040" solid core aluminum, which is cost-effective, lightweight, and easy to work with. Standard sheets come in 4'x8' and 4'x10' sizes. Other base material options include .050" perforated aluminum available in 4'x10' sheets with 7 standard perforated hole sizes. Custom thicknesses of both aluminum options are available. Refer to the [MózMetal Base Material Guide](#) for full availability. Refer to the section on LEED to see how the use of Aluminum can contribute to LEED credits for your project. Stainless steel is also a base material option for Móz Patterns only; Móz colors are not available on Stainless steel.

## **COLORS/PATTERNS**

Choose from over 500 pattern/color combinations within our Classic Series or Blendz Series collections. Proper lighting elements can add a compliment to any Móz Metal pattern/color. Darker colors should be given proper lighting to avoid the loss of pattern/color visibility. Tuff Coat finish can also change appearance of color due to its matte texture. Colors vary from lot to lot so it is always best to obtain an actual sample of a finish before specifying, and providing a submittal sample to the factory as a control if a variance could become an issue.

All directional patterns run parallel to the length of the sheet. No two sheets are alike which makes exact book matching difficult especially on directional patterns. Most non-directional patterns, and some directional patterns, will seam easily with minimal visual disturbance. View the Sheets section of our website for trims and framing available for a more seamless appearance.

## **PROTECTIVE FINISHES**

Móz Metals are available in a variety of protective finishes for added durability. Take a look at the [MózMetal Protective Finish Guide](#) to learn more about recommended applications for each finish. Please request a sample or contact Móz Designs regarding any uncertainty regarding the use of our products in application.

## **FIRE RATINGS**

According to the ASTM E84-16 Standard Test for Surface Burning Characteristics of Building Materials, Móz Aluminum Metals with a Polycoat or Durafilm finish have a Class A rating. Móz Aluminum Metals with a Tuffcoat finish have a Class B rating. Test reports can be provided upon request. Stainless steel panels without a coating DO NOT require a fire rating since they are non-combustible.

## **LEED CONTRIBUTION**

Móz Metals can contribute to LEED credits. Further information along with Health Product Declarations (HPD) and recycled content of our products can be found online at <http://mozdesigns.com/sustainability/>

## **SAMPLING PROCESS**

Móz Metal samples are generally 5"x7" in size for most Classic Series colors and patterns. Samples of Móz Blendz Series, Perforated, Corrugated, Stainless and other Protective Finish options have limited availability. We will do our best to accommodate most sample requests but sometimes a pattern, color, finish, or material substitution may be made. Samples can be easily requested through our website at [www.mozdesigns.com](http://www.mozdesigns.com) Contact us for information on the availability of a sample box for purchase or other custom sample requests.

## **ORDERING PROCESS**

All Móz Metal Laminate sheets are made to order in full sheet sizes. Custom sizes, thickness, material, etc. are available for larger orders. Contact us for minimum orders for your particular needs. Typical production lead-time is 2-4 weeks (plus transit) at a minimum, pending current production workload at time of order. Best to call for current production lead



times. Rush orders will be considered at the time of purchase. All orders must be approved in writing prior to production. See also section on crating/shipping.

#### **CRATING & SHIPPING**

All materials are packaged in a flat pallet. Due to size, all material must be shipped by a freight carrier. All shipments will be dispatched by Móz preferred carriers and sent FOB Destination. Upon receipt of goods, client must visually inspect packaging for any visual damage and note any such damage on delivery receipt. Any concealed damage must be reported within 24 hours. Failure to do so may result in an inability to file a shipping claim therefor any replacement material will be at the purchasing party's expense. If you choose to use your own carrier, you are responsible for providing all necessary items such as Bill of Lading, scheduling of pick up, and insurance during transit. Móz Designs is not liable for damages to shipments during transit that are not paid for and secured by Móz Designs.

#### **STORAGE & HANDLING**

Stacking or adding significant weight to the material is not recommended as it may create impressions in the finish. Móz Metals should never be stored in high moisture areas, even when crated. Special care should be given in hot and humid marine and tropical environments as prolonged humidity could cause problems with the adhesive from the peel coat masking. Storage temperature should not exceed 85°F or go below 50°F for long periods of time. Optimal storage conditions are room temperature (70°F to 75°F) and 50-60% relative humidity. Do not expose the materials to sun-light or heat for long periods of time, which may cause difficulty in removing the protective mask.

To prevent edge damage, dings, and scratches, material should be handled by two people and transported face up. Móz Metals have a painted finish, which can be scratched/marred with heavy contact such as metal on metal. Although durable, the finish must be treated with care; much like a high-grade automobile finish.

#### **PROTECTIVE MASK**

All materials (excluding the DuraFilm, Tuff Coat, and Corrugated products) come with a protective peel coat mask to offer added protection during transportation, machining, and installation. Masking may be clear or transparent. Care should be taken while handling the product, even with the protective masking. Do not use markers on protective masking; some types of inks will permeate the film and mark the material surface.

It is recommended to leave the protective mask on the product during machining/installation. However, quality checks should be carried out on the sheets beforehand by simply lifting up the edge of the protective mask and laying it back down. Any premature, partial, or total removal of the protective masking will expose the metal to possible damage through unfinished manufacturing or through installation in unfinished building sites.

During transit the protective mask may shrink due to moisture and cause wrinkle impressions on finished product. These are just packaging impressions that should disappear after removal of mask once material has time to breath. If impressions do not fade away a heat gun may be used to lightly melt away any wrinkle impressions. See also section on Storage & Handling.

#### **CLEANING & MAINTENANCE**

For GENERAL CLEANING, use a damp, soft cloth with mild, non-abrasive soap and water. For HEAVY CLEANING and removal of grease, use oil based mineral spirits or naphtha. Low concentration ammonia based cleaning agents such as glass cleaners may also be used. Minor scuffs can be polished out by hand with a #6 to #9 type finishing polish or wax. DO NOT treat with rubbing compounds or lacquer thinner as this may dissolve or etch the coating.

#### **LAMINATION / ADHESIVES**

Móz Metals can be applied using most contact adhesives, cements, or panel adhesives depending on the substrate and actual application. Always check with your adhesive supplier to make sure the adhesive you select is suitable. In all cases, the adhesive manufacturer's instructions should be followed as to the use of the adhesive and substrate preparation.

It may be helpful to prep Móz Metals prior to lamination by scuffing the backside with 80grit sandpaper.

Proper substrates must be used and careful bonding procedures must be observed. Substrates should be of good quality plywood, high-density particleboard or high quality fiberboard. The more resistant the substrate is to dimensional change



(shrinkage and/or expansion from changes in humidity and temperature) the better the long-term results will be. To prevent warping, in environments where temperatures may fluctuate drastically or high humidity is present, it is recommended to apply an equal strength material to the back of your substrate to seal off access to moisture.

Use only oil-based naphtha, or mineral spirits for adhesive cleanup. Do not use ammonia, abrasive cleaners/pads, or harsh solvents like lacquer thinner. It is recommended that you test your adhesive system and/or cleaning agents with a sample piece of metal.

We recommend the use of a mechanical fastening system when using Móz Perforated or Corrugated metal products.

## **CUTTING**

All blades must be clean, sharp, and properly maintained. Dull cutters create excessive chipping and burring and reduce the quality of cut. Sand down cut edges with 220 grit sand paper. Files may also be used to debur sharp edges. Always file down on the decorative surface. Before cutting material it is always best to test cut first to confirm results.

Routing Sharp multi-fluted carbide cutters are necessary when cutting aluminum; the larger the diameter of the cutter the better the results. The speeds recommended are the same as those used in standard woodworking practices. It is important to use a router having adequate horsepower to maintain cutting speeds. It is also important that the cutter travel direction is against the cutter rotation. Always cut decorative side up (into the decorative face). When routing, the less material removed the better. It is also important that the face of the material be protected from the base plate of the router. For edge trimming, high-speed trimmers should be used (approximately 22,000 RPM) and will produce smooth burr-free edges. When using a CNC router to cut aluminum it is best to use the mister add-on to spray vegetable oil on the router bit to aide in cutting. Refer to your CNC manual for optimal settings when cutting aluminum.

Sawing (table & panel saw) Always use sharp carbide tip blades with 80 to 100\* teeth. Blade should be 8" to 12" in diameter, and at 0 degree rake for best results. It is always best to cut into the decorative face with the blade to minimize burring and edge distortion. Do not force material through saw. A constant feed rate will produce smoother cuts. Blade wax will promote better cuts.

Shearing Blades must be clean, sharp and properly maintained. Due to pressure, one side will always chip. To avoid chipping take special attention to placement of decorative metal face as follows: for chip free cut to material on operator side feed thru decorative face down. for chip free cut to material on drop side feed thru decorative face up. Shears used to cut stainless may be dull and unreliable for precision cutting. Always sample cut first.

Laser & WaterJet Cutting Laser Jet is **never recommended** on painted aluminum, as it will leave burn marks along edge of metal. Water Jet may be more successful using a fine cut for architectural finishes. CNC routers are typically preferred. It is recommended to sample test first.

## **OTHER MACHINING (BENDING/FORMING/WELDING)**

Móz Metals are **not post-formable** beyond their natural tolerance. It is not recommended to form/curve Móz metals beyond a 2' radius as surface cracking or de-lamination may occur. All bending/forming, beyond this tolerance, must be done by the factory prior to the application of Móz colors and patterns. Welding is **never recommended** under any circumstances, as it will destroy/discolor the decorative finish in the welded area.

## **GENERAL**

The user of Móz Metal products must ultimately determine the suitability of products for any particular purpose and use, including the establishment of their own procedures for fabrication and installation of these products. The information supplied is a general guideline and a supplement to tool manufacturers' recommendations as to proper use and capabilities of their equipment. This information is believed to be reliable but no warranty is expressed or implied

## **WARRANTY DISCLAIMER, LIABILITY**

The information in this and all related documents released by Móz Designs is believed to be reliable; but Móz Designs disclaims the creation of any expressed or implied warranty including the warranties of merchantability and fitness for a

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\* Use 100-tooth blade when cutting metal without a backer board



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particular purpose with respect to Móz Designs products. In all cases, users must determine the suitability of such products for any particular use and shall assume all risk and liability whatsoever in connection herewith.

Since we exercise no control in handling, storage, application and use of these products or the products of others with which they are used in combination, no warranty, express or implied, is made as to the results and effect of their use. User must also establish his or her own procedures and verify the finish of any product to be as ordered before use. We recommend testing all procedures before beginning production or installation. Buyer's exclusive remedy for a loss or claim resulting from the use of Móz Decorative Metal products shall be replacement of product proven to be defective. In no event shall the Seller be liable for any special, incidental, consequential or exemplary damages.

### **IMPORTANT:**

This information is intended to be a general guideline. For further information please contact:















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## MóZ Metal Base Material Guide

MóZ Metals come in a variety of thicknesses allowing for a multitude of usage in applications.

BASE MATERIAL		MÓZ ARCHITECTURAL PRODUCTS	MÓZ LAMINATES (solid core metal sheets)	WEIGHT lbs/sq ft
<b>Solid Aluminum [ASTM B209]</b>				
.040" / 1.106 mm		<i>Not Available</i>	Standard 4'x8' & 4'x10' sheets	0.576
.063" / 1.6 mm		Standard <sup>†</sup>	<i>Available</i>	0.907
.090" / 2.286 mm		Standard <sup>†</sup>	<i>Available</i>	1.3
.125" / 3.175 mm		<i>Available</i>	<i>Not Available</i>	1.8
Custom thicknesses		<i>Available</i>	<i>Not Available</i>	-
<b>Perforated Aluminum [ASTM B209]</b>				
.063" / 1.6 mm		Standard <sup>†</sup>	<i>Standard 4'x10' sheets</i>	0.907
.090" / 2.286 mm		Standard <sup>†</sup>	<i>Available</i>	1.3
.125" / 3.175 mm		<i>Available</i>	<i>Available</i>	1.8
custom thickness		<i>Available</i>	<i>Not Available</i>	-
<b>Corrugated Aluminum [ASTM B209]</b>				
.040" / 1.106 mm		Standard <sup>†</sup>	Standard 44 1/2" x 96" & 44 1/2" x 120" sheets	0.576
<b>Perforated Corrugated Aluminum</b>				
.063" / 1.27 mm		Standard <sup>†</sup>	Standard 44 1/2" x 120" sheets	0.907
<b>Stainless Steel [ASTM-A240]</b>				
20 gauge / .036" / .9144 mm		<i>Available</i>	Standard 4'x8' & 4'x10' sheets	1.474
18 gauge / .048" / 1.219 mm		Standard <sup>†</sup>	<i>Available</i>	2.016
custom thickness		<i>Available</i>	<i>Not Available</i>	-

† standard thicknesses vary per product.

**Custom sheet sizes available in 5' max width & 12' max length for most base materials. Contact us for pricing, availability, and minimum orders.**

**MóZ Laminates are not post-formable due to the surface coating applied by the factory. Refer to our line of pre-formed products or contact us to discuss other pre-forming opportunities.**



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## Móz Metal Protective Finish Guide

Móz Metals come in a variety of protective finishes allowing for a multitude of usage in applications.

FINISH	MÓZ ARCHITECTURAL PRODUCTS	MÓZ LAMINATES (solid core metal sheets)	SUGGESTED APPLICATIONS
<b>Polycoat</b> (Gloss or Satin)			
A high gloss or satin automotive-grade topcoat is able to withstand more wear-and-tear.	STANDARD	STANDARD	Bar fronts, reception desks and other high traffic areas.
<b>DuraFilm<sup>§</sup></b> (Satin)			
A satin surface coating that acts as a barrier for painted finishes and is ideal for public and high-traffic areas where scuffing or graffiti is a concern.	AVAILABLE	AVAILABLE	Wall panels in public areas such as airports, mass transit, and theatres.
<b>Tuffcoat<sup>§</sup></b>			
A matte, textured surface coating that acts as a barrier for painted finishes. High scratch resistance makes it suitable for horizontal surfaces and high-traffic areas.	NOT AVAILABLE	AVAILABLE	Wall panels in public areas such as airports, mass transit, and theatres.
<b>Exterior</b>			
Available in most colors. Production processes vary depending on exact exterior placements and elements such as direct exposure to sun, climate, or regional location.	AVAILABLE	AVAILABLE	Signage, canopies and column covers.

**Please contact us for pricing, recommended usage, and minimum order information.**

Móz Metals are painted metal. It is not recommended to form/curve MóZ metals beyond a 2' radius. All bending/forming, beyond this tolerance, must be done by the factory prior to the application of MóZ colors and patterns. Visit our Products section to see how we utilize our in-house fabrication shop to provide you with pre-finished architectural products ready to install.

For added durability ask about MóZ patterns applied to Stainless Steel base material. MóZ line of Tabletops come with a hardened epoxy resin and do not apply to these finish options.

<sup>§</sup>Edge treatments are suggested for use with Laminates sheets in high traffic areas; see available Trims & Framing. Not available with Perforated or Corrugated base materials. Availability on MóZ Architectural products may vary.