

M³METAL COMPOSITE

Blanks, Billets and Knife Scales

Macro-Molecular Metals (M3) are part of the new breed of composite materials that make everything from the Boeing 787 to the International Space Station possible. Recognized for its astounding aesthetic properties, gem quality finish and heirloom characteristics; M3 Metal Composites allow the artisan to transcend the barrier between art and craft and transform handcrafted objects into the finest luxury goods.

These materials are made with high purity metals and other exotic elements that have been deconstructed to the macro-molecular level, re-alloyed and then reconstructed with highly refined chemical binders. Heat, pressure and an exothermic chemical reaction cause the molecules to cross link forming a new material with a unique macro-molecular structure. Because the molecules are distributed homogenously the new material gains the benefit of all the unique characteristics of the individual components.

Originally developed for the aerospace, medical and marine industries, the engineers at M3 Composite Industries (M3ci) uncovered a host of aesthetic qualities that build on these remarkable materials benefits. The proprietary M3ci process together with the natural interplay of the metals and elements creates exotic metal colors, beautiful random wood grain patterns and metal combinations that were never before possible. Deep, dimensional, mirror finishes with galactic star field qualities make for a surface that is mesmerizing, lasting yet easy to achieve.

Engineered to be dense and stable, M3 works easily with traditional wood working tools and will hold the finest of detail. Colors and patterns run completely through the material and the M3 PMP (premium metal polish) finishing system makes the famous M3 gem quality finish easy to achieve. The finished product is beautiful, lightweight, scratch resistant, very strong, comfortable to wear and to touch and will last for many generations.

USE APPROPRIATE DUST MASK AND EYE PROTECTION NIOSH 42 CFR 84 (or equal) PAPER DUST MASK AND GOGGLES

- No special tools are required to work with M3. It will cut, turn, sand, grind, carve and drill with standard wood working tools.
- Drill speed should be set low at around 600rpm and you should back the bit out every inch in order to control heat buildup. Using a slow but steady pressure and sharp drill bits should result in a clean exit hole.
- M3 will turn on any lathe; wood or metal.
- Set lathe speed around 3000rpm and use sharp tools. Carbide tipped chisels will require less sharpening.
- Different M3 metals exhibit the surface hardness associated with the source metal. Titanium and stainless steel will be a little harder on the tools than copper and aluminum.
- Use a light touch and take the material down in thin layers using care not to build up too much heat.
- M3 will sand aggressively so be careful with the lower grits.
- Hold sandpaper and polishing cloths with your hand so that you can control the heat buildup.
- M3 needs to be finished. It can be sanded wet or dry and will achieve a high gloss, scratch resistant surface. Follow the polishing instructions for the PMP (premium metal polish).
- You should polish this material as "Metal" rather than resin or acrylic.
- M3 will glue or laminate to itself as well as to most other metals and materials using any good Epoxy or CA glue. Stone setting epoxy should be used when mounting precious and/or semi-precious stones.
- M3 metal will patina with standard metal patina chemicals that are readily available.
- The metals used in producing M3 maintain a very high level of purity and some will patina naturally over time and with use. if you want it to always look the same as when first produced use a clear coat, wax or polish.
- "M3 Mokume Gane" and "M3 Damascus Steel" are a modern interpretation of these ancient Japanese and Middle Eastern metal arts.

Our Guarantee: All M3 Mokume and Damascus patterns are random and in many cases created by the natural interplay of the metals during the M3 process. While we have some control over the overall patterns the end result is like a snowflake or fingerprint, no two are alike. It is the random nature of the patterns that make our M3 Mokume Gane and Damascus so desirable.,

If your finished work is not presentable due to an unsightly pattern or any defect in the blank then we will replace it for **FREE**. Simply send it back to us with an explanation of the defect and we will send you a new one; all you pay for is the shipping.

Oops Insurance (50% deductible): We recognize that M3 blanks cost more than other blanks on the market and they are worth every penny. What makes this material truly unique is the fact that it is unbelievably strong while at the same time easy to turn, carve and polish. That being said, mistakes do happen and when they happen with an expensive material it hurts. We want you to be successful. So if you break the blank, drill through, cut it wrong or destroy it in another fashion while working with it we will replace it for 50% of the current catalog price plus shipping. Simply send us the pieces with a brief explanation of what happened.

QUESTIONS: visit: www.M3composite.com
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