Bump Up Your Metal Mettle

Tips for buying metal

COLOR, COLOR, COLOR

Fashion trends go in cycles, and right now the cycle is all about color. We're not talking about yellow-gold-vs-white-gold (though yellow gold is definitely back in). We're talking about, when it comes to yellow gold, do you want dandelion yellow, brassy yellow, or warm gold yellow? Or do you want rose gold, red gold, antique white, silvery white, or green gold?

And how much gold do you actually want in your design? Until last year, the FTC Guides required that only jewelry 10k or higher could be sold as gold. But the updated guides removed the lower-limit on karatage. Now you can sell a 7-karat ring as gold, as long as you include a correct hallmark. Some in the jewelry

industry have expressed concern about this. [Editor's Note: MJSA, along with other prominent industry organizations and manufacturers, opposed the change and asked the FTC to maintain the 10k threshold.] They fear that being able to mark anything lower than 10k as "gold" could damage the consumer view of what gold means. They've also expressed concern that some low-karat alloys may not be as durable or tarnish resistant, depending on the kind and amount of base metals used. Others, however, say that if manufactured well, lower karat gold can create opportunities to sell to consumers looking for competitive price points. This is a decision that is best made relative to your brand identity and values.

Choose vendors that are actively focused on being good citizens by monitoring their supply chains and reducing the impact of their manufacturing processes.

WHAT MATTERS WHEN BUYING METAL?

If you're casting, particularly in higher volumes or for repeat items, then you know what a variation in the manufacturing process can do to your results. A little more or less zinc in the alloy, or a slightly different shaped bead, can introduce variables that alter your expected results. Most buyers of silver, 14k, or 18k gold sheet and wire don't stop to think about the manufacturing characteristics of the metal. But if you plan to experiment with other formulations of gold, silver, platinum, or base metals, then you need to pay a bit more attention.

Make sure your manufacturer uses high purity metals and that its processes are well-controlled. Repeatability doesn't matter for custom pieces, but your retailers will get frustrated if their reorders look different from batch to batch. Ask your vendors about their raw material and quality control processes. If they use a quality management program, such as ISO or Lean, that tells you a lot about their commitment to quality.

Buy metals that are guaranteed to be free of cadmium, lead, and nickel. Though not all countries (or even U.S. states) have the same requirements for these metals, it is best to produce for the most stringent regulations. That way, you never have to worry about where you're shipping your jewelry.

When buying platinum group metals, consider the expertise of the production company. Platinum is notoriously challenging to work with, so the initial quality of your metal is paramount.

When buying a new metal, ask for a technical data sheet (TDS). The TDS will provide you with important information such as composition, metal density, and recommended melting temperatures. The TDS will also show you the intended product applications. For example, can you cast the metal in both open and closed systems? Can you use it for stone-in-place casting? Is it good for producing sheet? The TDS will also list the mechanical characteristics of the metal, including tensile strength, yield strength, and hardness before and after annealing. If a metal is intended for casting, the TDS will tell you the processing parameters for various thicknesses. If you'll be fabricating, it will give you the annealing parameters at various thicknesses and recommended reduction parameters.

Many design-to-production failures could be avoided if more attention was paid to the working attributes of the metal before starting production.

WHAT TO PAY

Metal prices are so market-driven that you're unlikely to find much variance. If you encounter a vendor with demonstrably lower prices, ask questions about the quality of their raw materials and their approach to quality control. If you encounter a vendor with significantly higher prices, ask them why they think they're worth it. Don't assume that everyone is selling the same thing for different prices.

Make sure your vendors comply with all local, national, and industry laws and regulations (for example, in the U.S., gold suppliers must have an anti-money laundering policy), certify the quality and consistency of their products, and can offer you the level of support you require.

If you decide to shop for master alloys, remember that you are paying for more than the metal. You are paying for the metallurgical expertise of the company producing the alloy. Creating formulas to achieve different purposes, such as color variations or types of strength, flexibility, or wear-resistance, requires significant scientific knowledge and process controls.

Finally, pay close attention to supply

chain and production responsibility. Choose vendors that are actively focused on being good citizens by monitoring their supply chains and reducing the impact of their manufacturing processes. You have more choices than ever when it comes to responsible metal sources, from RJC-Certified partners to Fair Trade, Fairmined, and other protect-the-source metal initiatives. Millennial and Generation Z consumers really care about these issues, and besides—it's the right thing to do. ◆

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