

WHAT KIND OF METAL WIRE SHOULD YOU CHOOSE FOR MAKING JEWELRY?

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Which metal wire should you choose to make a bangle, form a ring, or set a stone? Diameter is important, but it's not the only factor. Two 0.8 mm wires can behave very differently. A flexible copper wire is easy to shape, while a stainless steel wire of the same diameter will generally be much harder to bend. To make the right choice, always consider three criteria: the wire's diameter, its material, and its hardness. The weight of the jewelry and the diameter of the beads' holes should also be taken into account.

What wire diameter should you choose based on its intended use?

Here are some simple guidelines to get you started. The wire diameters should then be adjusted based on the material and stiffness of the wire.

Use	Recommended Diameter	Recommended Hardness	Recommended Materials
Ligatures and small coils	0.20 to 0.40 mm	Soft	Copper, 925 Sterling Silver, Gold Filled
Wire wrapping around a stone	Structure: 0.60 to 1 mm / ligatures: 0.20 to 0.40 mm	Soft to semi-hard	Copper, brass, 925 Sterling Silver, Gold Filled
Ear wires, studs, and posts	0.50 to 0.80 mm	Soft to semi-hard	Copper, 925 Sterling Silver, Gold Filled, brass
Earring hooks	0.70 to 0.80 mm	Semi-hard	925 Sterling Silver, Gold Filled, stainless steel
Jump rings	0.80 to 1.20 mm	Semi-hard	Stainless steel, brass, semi-hard 925 Sterling Silver, semi-hard Gold Filled
Links and connectors	0.80 to 1.20 mm	Semi-hard to hard	Stainless steel, brass, 925 Sterling Silver, Gold Filled
Rings and rigid structures	Approximately 1 to 2 mm	Semi-hard to hard	Brass, stainless steel, Gold Filled, 925 Sterling Silver; aluminum for large sections
Lettering and large shapes	1 to 3 mm	Soft to semi-hard	Aluminum, copper
Assembly / Stringing	0.25 to 1 mm depending on the load		Stranded wire

These values are not standards. For example, a 1 mm aluminum wire remains very flexible, whereas a stainless steel wire of the same diameter may already require specialized tools.

What wire should you use for wire wrapping?

For finewire wrapping, it's often best to use two different wire diameters.

A wire measuring 0.60 to 1 mm can be used to create the framework of a pendant or to secure a stone. A wire measuring 0.20 to 0.40 mm can then be used to make ligatures, spirals, and small coils.

For beginners, copper is a particularly good choice: it's easy to shape and allows you to practice without immediately using a precious metal. Brass can provide greater structural integrity. 925 Sterling Silver and Gold Filled are suitable for more luxurious pieces. Stainless steel can also be used, but its stiffness makes it less comfortable for learning complex coiling techniques.

To take your skills further, check out 5 things to know before getting started with wire wrapping.



What wire diameter should you use to make jump rings?

To make jump rings, a diameter of around 0.8 mm is best suited for lightweight jewelry. At around 1 mm, the ring becomes stronger and can be used for many bracelets, necklaces, and pendants. For heavier components or larger rings, 1.2 mm or more may be preferable.

Note: The inner diameter of the ring also matters. With the same wire thickness, a large ring generally deforms more easily than a small one.

For a functional ring, it's best to choose a semi-hard wire or one that's stiff enough to hold its shape.

You can also learn how to make your own rings using the cannottle technique.

What wire should you use to make a bangle?

A bangle must retain its shape while being worn. The hardness of the metal is therefore just as important as its diameter:

- With relatively rigid wire made of Gold Filled, brass, or stainless steel, diameters around 1 to 1.5 mm can already be used to create a delicate structure.
- A highly malleable metal often requires a greater thickness. Aluminum, for example, is particularly well-suited in 1.5, 2, or 3 mm thicknesses for creating large, lightweight shapes.



What diameter should you use to make hooks or links?

For ear hooks, a diameter of about 0.70 to 0.80 mm is a good guideline. A semi-hard wire helps the hook retain its shape.

The end that goes through the earlobe must always be perfectly smooth and free of sharp edges.

To make a chain link or connector, you'll want more rigidity. A diameter between 0.80 and 1.20 mm is common, but it must be suited to the weight of the piece of jewelry.

Wire can therefore also be used to make your own findings: rings, hooks, posts, eye pins, connectors, links, or clasps.

What material should you choose for making jewelry?

- Copper wire is particularly easy to shape. It is suitable for spirals, ligatures, weaving, and wire wrapping. Raw copper can develop a patina over time. Treated or coated wires have different surface properties.
- Brass is also very well suited for wirework. Depending on its diameter and hardness, it can be used for everything from fine coils to rings, bangles, or structural pieces.
- 925 Sterling Silver can be used to create delicate and durable jewelry. It comes in various diameters and degrees of hardness. However, it may tarnish naturally over time and therefore requires proper care.
- Gold Filled wire is available in soft, semi-hard, or hard versions. This allows you to precisely choose the desired properties for a ring, clasp, structure, or bangle.
- Stainless steel wire offers excellent mechanical strength and good corrosion resistance. On the other hand, it is generally more difficult to cut and shape. Use appropriate tools, especially for larger diameters.
- Finally, aluminum is lightweight and highly malleable. It's ideal for lettering, spirals, graphic jewelry, or large-diameter shapes. Its flexibility makes it less suitable for small rings and clasps that must withstand high tension.



Soft, semi-hard, or hard wire: what are the differences?

Hardness completely changes how a wire is used.

- Soft: ideal for ligatures, spirals, weaves, metal hooks, and complex shapes.
- Semi-stiff: suitable for loops, rings, hooks, links, and structures that need to retain their shape.
- Hard: useful for certain clasps, bangles, or structural elements. It is more difficult to shape.

Working with metal can also gradually harden it. Repeated bending in the same spot can eventually weaken the wire.

What about cable wire or shape-memory wire?

• Cable wire is not used for shaping. It consists of several metal strands joined together and is usually sheathed. It remains flexible and is mainly used for stringing beads to make necklaces or bracelets.

• Memory wire is yet another type. It is a very hard, preformed steel wire that tends to return to its original shape. It's particularly useful for making multi-strand bracelets, rings, or chokers. Use wire cutters designed for this type of wire to avoid damaging your standard wire cutters.

Result

