Metals and appearance of materials:

All of our products are ***the colour of the metal from which they are made*** e.g. copper coloured material is made from solid copper (see note about copper below). The only exceptions are when the term “Finish” is noted. For information about these items, please read “Finishing options” below.

Aluminum – a bright and light metal that offers very good corrosion resistance. Will darken over time.

Brass and bronze – copper alloys (made up of copper and at least one other metal). Due to this fact, there will be variations in appearance between the same products due to different chemical compositions**.

Copper – all of our copper items are generally 99.9% copper which will darken over time and oxidize if exposed to the elements**.

Galvanized – a zinc coating that is used to prevent mild (plain, regular) steel from rusting. Typically used on metal intended for outdoor use. The appearance will darken over time and white rust may develop on the material. GAW stands for a hot dip galvanized after welding (or in some cases weaving) and offers the best rust resistance. GBW stands for galvanized before welding (or weaving). When a galvanized wire is welded to create weldmesh the zinc coating is burned off at the weld leaving a little dark stain at the weld. While this still offers corrosion resistance the mesh will eventually start to rust at the welds. It is more economical than the GAW material.

Mild steel (unfinished) – plain, regular steel that if left unfinished will rust (even from the moisture in the atmosphere). Typically dark grey to black in appearance**. It is not uncommon for mild steel material to have slight surface stains on it. For instructions of how to deal with this, please read the paragraph titled “Paint or Clear coat (do it yourself)”.

Stainless steel (various grades) – stainless steel colour in appearance. Stainless steel wire mesh will have lines or striations in it as the wire that is used to weave or weld it does not always come from the same lot leading to slightly different shades of the wires across the mesh**. Please note that while stainless steel is corrosion resistant, it will still rust (think you your cutlery at home). Type 316 stainless steel (commonly referred to as marine grade) has molybdenum added to it to provide superior corrosion resistance to type 304 stainless steel (commonly called food grade or noted as 18/8).

** We will always try to make sure that all material in one order will be from the same batch of material to ensure a uniform appearance. However, we cannot guarantee that materials from different orders will have the same colour or appearance.

Surface Conditions:

All items will have a light oil (in the case of perforated metal or expanded metal) or drawing compound residue (in the case of weldmesh or weavemesh) on them. This is from the manufacturing processes. It can be cleaned off using Varsol or mineral spirits.

Variations:

Weldmesh and weavemesh are not perfect products, there will be slight variations in openings across the meshes and they are not perfectly flat. These conditions are a function of the product (made from individual wires) and manufacturing process as most of these items are all manufactured in rolls. Weavemesh and weldmesh may have slight waves along to outer edges of the mesh (again a function of the manufacturing process). Expanded metal will also have variations in the openings due to the manufacturing process. Coils of material are slit and then pulled apart (hence the name “expanded metal”). Manufacturers note tolerances of up to +/- 5%. Perforated metal is the most consistent and has the least variations due to the manufacturing process, coils of steel stamped by tooling. Both perforated metal and expanded metal sheets tend to be flatter than mesh.

Finishing:

What *needs* to be finished?

All items that state that the material is mild steel (unfinished) must be finished or they will rust in time, even from the moisture in the atmosphere. Other metals can also be painted, powder coated or anodized (in the case of aluminum).

Paint or clear coat (do it yourself):

The most important step in the finishing process is the cleaning one. All of our mild steel items either have a light oil (on the perforated and expanded metals) or a drawing compound/wax (on the weavemesh) on them. It is imperative that this is cleaned off well using Varsol or mineral spirits. If there is light surface rust or staining, green emery pads can be used to remove this (you may want to do this step if clear coating as it creates a nice brushed look). If this step is required, make sure to clean the metal again with Varsol or mineral spirits after brushing or rubbing the material with the emery pad. Once clean the material can be painted with any metal paint. Benjamin Moore recommends the Krylon brand of paint. If you would like to keep the natural colour of the metal (which can be very attractive) Krylon offers a clear lacquer (we recommend the matte finish).

Powder coating (material is sent out):

An electrostatic process to get coloured powder to stick to the metal and then baked on to finish the process. It is relatively environmentally friendly as the powder that does not end up on the material is recouped and can be used again. A very important thing to understand is that powder colours are ***not the same*** as wet colours i.e. Benjamin Moore CC-40 is not a powder colour (nor are any of them, for that matter). Powder colours are formulated by the powder companies (TIGER is a global one). A box of powder typically costs $500.00 and up. So, unlike your local Benjamin Moore outlet for wet paint, you cannot just by a quart of any powder colour. TIGER RAL colour charts are available online to give some idea of what colours are available. From our experience we have learned that most powder coaters seem to carry 15-20 different popular powder colours (different for each powder coater) in stock (it is too expensive for them to carry ones that they don't regularly use). Powder coating is the most practical finish for outdoor applications but still will inevitably rust in time (due to the little unfinished points where the material is hung to go through the powder coating line).

Plating (material is sent out):

Antique copper and brass plating is only available on certain mesh items, not on any of the perforated or expanded metal items. Bright brass, bright copper, satin brass and satin copper are plating options for the perforated metal. Plating is an involved process that starts with an acid bath (to clean the material). After this a nickel layer is added (to help the final metal stick to the material) and then the layer of the desired metal finish is added e.g. copper, brass, chrome, etc. Once this final metal layer has been added the pieces have to be relieved by hand to the desired final finish (antique, satin or bright). Due to the number of steps, cost of materials and manual intensity of the process, the most expensive of all options. For interior applications only.

Ferrier Wire plating options (for certain weavemesh items only):

Platte Noir – oil rubbed bronze
Lammin Messing – antique brass
Lammin Kupfer – antique copper

Anodizing (for aluminum):

Anodizing is an electrochemical process that converts the metal surface into a decorative, durable, corrosion-resistant, anodic oxide finish. The introduction of dye to the process allows the material to be coloured. Again, limited colour options similar to powder coating.