



Zinc Countertops

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Appearance

The use of zinc alloy sheet as cladding material for countertops, tabletops and kitchen and bar surfaces has always been popular due to its characteristic patina and self-cleansing properties. Recently there has been a revival of interest in this unique surfacing metal that can meet numerous design requirements, ranging from historic restorations to modern industrial themes. While mill finished zinc sheets have a highly reflective surface that can be preserved with clear coatings, most designers opt for the natural look of aged zinc that develops a dull gray, pewter-like patina over time (see Finishing below). Since zinc is one of the softer metals, it lends itself to a distressed look that is normally accomplished through use, but often established during fabrication.



Photo Courtesy of Overbrook Builders, Oxford, PA

Zinc as a Work Surface

Zinc alloy produces an oxide on its surface that is harmless to humans. In fact, we often take zinc oxide as a dietary supplement, in certain cold

medications and as a remedy for diaper rash. Zinc oxide can naturally inhibit the development of mold and mildew, which is a highly desirable property in food preparation environments.

Zinc sheet material, being rather soft, will bear the witness marks of use. Slight dents and abrasions will occur during routine use and the owner needs to appreciate these occurrences as an intrinsic part of the character of this material. If a pristine appearance is desired that will not change over time, we suggest other materials like stainless steel or granite be considered.

Zinc is also reactive to acidic foods and other substances that may come in contact with it during use. The owner must be prepared to appreciate the concept of a “living” material in this regard. Advocates of zinc work surfaces consider areas of slight discoloration that occur from casual contact with reactive agents to be part of this material’s desirable character.

Fabrication

We recommend that the fabrication and installation of zinc countertops and work surfaces be left to craftsmen with experience working with metals. Aside from expert workmanship providing a better appearance, there are certain safety hazards involved in shearing, forming and joining any metal products. Contrarian Metal Resources stocks .032” x 28” x 120” sheets in Alloy 710 for countertop applications for immediate shipment in quantities as little as one sheet.

Zinc alloy is readily formable, enabling a variety of contours and details to be executed. However, formability is significantly reduced at temperatures below 50° Fahrenheit. Severe forming is best

accomplished by pre-warming the metal or at the very least, forming it in stages, allowing it to rest for a few minutes before subjecting the material to additional cold work.

We recommend zinc alloy sheets be mounted on some type of backer board, like plywood (not pressure treated). The material can be mounted using a variety of adhesives that are customarily used to bond conventional countertop laminates. Care should be taken to avoid bituminous compounds or other adhesive systems that are known to react with zinc. Your adhesive supplier can be of assistance in this regard.

Joining can be accomplished using a waterproof epoxy (the metal must be cleaned thoroughly), or by soldering. Use lead-free solder on food preparation surfaces (there are a number of commercially available lead-free solders on the market). Flux residue should be removed from both sides of the work piece. Further, care must be taken to prevent igniting the backer board material during the soldering process. Therefore, it is best to solder the material and remove residual flux before mounting the assembly to the backer board. While it is possible to weld zinc alloy sheets, it is difficult and therefore not recommended in light gauge cladding applications

Finishing

To a certain extent, finishing techniques are limited only by the craftsman's imagination. A variety of sanding, polishing and distressing techniques can be employed. It is a good idea to count on some sort of sanding in order to smooth out any rough edges left from fabrication. Linear, orbital and circular abrasive tools can provide a variety of background patterns. Since zinc is apt to show distress marks from use, it is advisable to pre-distress the surface. Once these steps are accomplished and the metalwork is installed, some sort of surface treatment should be considered.



Photo Courtesy of Overbrook Builders, Oxford, PA

While it is possible to clear coat zinc to preserve the bright mill (or as-sanded) finish, most clients prefer the natural dull gray patina that occurs over time, when work surfaces are washed on a regular basis. If the client is prepared to wait a period of some months for the zinc to show signs of maturity, your work is done. Most clients prefer that some sort of surface treatment be done in order to achieve a dull gray patina. It is possible to achieve a dull gray appearance with simple household agents like vinegar, orange juice and ketchup. However, it may be more efficient to use commercially available chemical treatments, such as dilute Muriatic acid, that are used to pre-age metals like zinc.

Cleaning & Maintenance

Zinc work surfaces can be cleaned with mild detergent solutions. Chloride-containing products should be avoided. Abrasive products should be used sparingly. Unwanted dark stains that occur from contact with reactants can be lightened with vinegar (rinse afterward). When properly fabricated, installed and maintained, countertops and other surfaces clad in zinc will provide decades of enjoyment.

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