



## METALLIC PIGMENTS

### Pigments vs. Powder Coatings

Crescent Bronze pigments should *not* be confused with ready-to-use “powder coatings.” Typically, our pigments require the use of a wet carrier or clear vehicle.

### General Information

Crescent Bronze metallic pigments are composed of copper, copper/zinc alloys, aluminum, or varying blends of all three. Because these pigments are pure metal, there are some limitations to their use.

Typically copper or bronze pigments do not tolerate excessive amounts of heat above 200°F before color degradation will begin. Our “Resisto” can be used where temperatures are expected to fall between 200°F and 500°F. Aluminum pigments can withstand temperatures up to 1200°F. At this temperature, a special high heat resistant coating must be used.

As to choice of carrier or vehicle, relatively pH neutral products provide a more stable environment for the suspension of metallic pigments opposed to highly acidic or alkaline vehicles. Because the nature of these pigments is to “leaf” or orient themselves near the surface of a paint or ink film, a clear top coat is advised whenever it is likely that a metallic finish will be exposed to excessive handling or where durability is important.

### Mixing Technique

The variety of different vehicle systems prevents us from outlining specific formulations. A general starting point for formulas would be:

(Approximate 1.5 – 2.0 pounds per gallon)

- Golds: Pale, Rich, Rich Pale, Deep
- Coppers
- Designer Tones
- Resisto Grades

(Approximate 1.0 – 1.25 pounds per gallon)

- Aluminum

*Note:* Coarse grade pigments (40 micron or higher; i.e. #251, #352) may require higher pigment load for better opacity. Micron size range: 10-70

Premixing or “wetting” of the pigment in a solvent compatible with the vehicle system is recommended. This allows for easy dispersion and helps eliminate tiny agglomerates that often form with mixing metallic powders. **Note:** Low to medium speed with a boat propeller type mixing blade is advised (a “soft mix”). Avoid exposing pigments to excessive shear.

## Application

Due to the low viscosity required for metallic pigmented coatings – which helps promote leafing– air-atomized spray and HVLP are generally recommended as the best application methods, especially for large surface areas. Because of the metal content of these pigments, the use of electrostatic equipment is NOT recommended. Other methods of application, including roller, brush, rag, sponge, etc. can be effective for doing fine detail work or smaller surface areas. To obtain best results, follow the recommendations of your coating/ink manufacturer.

## Exterior Application

Due to the nature of copper to oxidize over a period of time (note the difference between old pennies vs. those just minted), we do ***not*** recommend the use of metallic pigments for exterior use without the use of an exterior UV clear topcoat. Resisto grades, which have a thin protective coating applied to the pigment flake, along with the application of a UV resistant clear coat, can enhance the life expectancy of a metallic finish outdoors. Any Pearlescent pigment can also be used in an exterior application.

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## Questions?

Please contact us toll free if you have additional product questions: (800) 445-6810.

**Crescent Bronze Powder Co., Inc., is an ISO 9001:2015 registered manufacturer.**

