



## Technical Bulletin for Brass and Bronze

Brass and Bronze are copper alloys that will oxidize (discolor, corrode, stain and/or tarnish). This oxidation may take place rapidly or slowly depending upon conditions to which the material has been subjected. While the composition of bronze does affect the rate of corrosion, it has been recognized that composition is one of the least significant factors in bronze deterioration. The existence of sulphur and chlorine in the atmosphere, in the presence of moisture, is the most significant cause of bronze deterioration.

Unprotected areas of raw bronze will oxidize, or combine with oxygen present in the air, resulting in a thin film of copper oxide along the surface of exposed bronze. The resulting appearance is a flat, dark brown surface. This normal process of oxidation is a form of corrosion. The resultant oxide film is less reactive than raw bronze and forms a stable, protective barrier with a great reduced rate of oxidation.

Legacy Manufacturing LLC offers four different finishes on our extrusions.

Mill finish: Raw extrusion. Yellow in color that might have dark pressure lines through the length.

Bright finish (US 3): Bright high polish.

Satin finish (US 10): Low luster, even finish throughout.

Dark brown to black (US 10B): Dark brown oxidized color. (Not a durable finish)

All of the finishes above will not prevent the normal oxidation process. Periodic cleaning of the metal will be necessary. Bright polished material can be cleaned with a non-abrasive metal cleaner. Satin polished metal can be cleaned with a Scotch Brite pad. Dark brown material will continue to change with use and wear. Where stepped on, the oxidation will begin to wear. Areas that are not touched will remain fairly consistent. Wax may be used to slow down the oxidation and wear.

If no maintenance is done, the normal oxidation process will take over.

