BeCu

BERYLLIUM COPPER - THE NEW GOLD?

In Beryllium Copper, Manu Propria captures the Bumble Bee's paradox: compact power, tire-less motion, and beauty born of defiance

Today, I am one step further in the beryllium copper nib project.
Soon, the first #9 nibs will be tipped and slit for use in my fountain pens,
in nib widths EF, F, M, B, and BB.
In the meantime, I have been working on the design of the nibs and have decided to choose the bumblebee as my subject. What inspired me to do this were the actual and attributed symbolic characteristics of this extraordinary insect.
The bumblebee is a small miracle of nature: too heavy, too round—and yet it flies.
The bumble bees' paradox is its compact power, tire-less motion and beauty born of defiance.

Beryllium copper surpasses all other alloys in terms of elasticity and fatigue resistance, making it the ideal material for a fountainpen nib. Some people claim that BeCu is toxic.
However, the proportion of BeCu in this alloy is 0.2%, which is negligible.
BeCu grinding dust is classified as toxic, but its use is considered safe.
This alloy is also used in surgery for spring parts, clamps, and tweezers because it is strength and elasticity its high fatigue strength, and is highly corrosion-resistant.

When polished, BeCu has a beautiful color similar to that of red gold. Over time, a shiny oxide layer forms, which intensifies the red color. This oxide layer provides
strong corrosion protection, surpassed only by gold.

Why is beryllium copper so corrosion-resistant? It forms a stable, protective oxide layer
Highly resistant to seawater, chemicals, and atmospheric corrosion. It remains hard, resilient, and conductive. In the chemical industry, BeCu is used for pump components, valve seats, and diaphragms that come into contact with acids, alkalis, and solvents.


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