

## **Cardas Wire information**

During the mid eighties, there was a shortage of ultra pure, ultra soft copper in the United States and the consistency of costly imported copper was poor, so Cardas Audio began manufacturing its own copper conductors. Other manufacturers, using quality materials and carefully monitoring standard drawing processes, produced a good conductor, but not a great one. Conventional manufacturing starts with pure copper, but during the drawing process, adds impurities, hardens and oxidizes the copper. Cardas developed a method to actually purify and super anneal the conductor during manufacture.

Starting with pure electrolytic bar copper with no recycled content, our proprietary process reduces, refines, draws, polishes and anneals the conductor. Conventional copper is annealed only after the final drawing stage, using a quick, electrical current process called Resistance Annealing. Cardas copper, however, is annealed the time consuming way, in reduction ovens, at every stage of the process for the Ultra grades and every other stage for the Super grades. Cardas does not use standard metal drawing dies. As metal dies wear, they leave impurities in the sonically important surface of the conductor. Cardas uses only custom diamond dies to protect and polish the wire each time it is drawn. Cardas also developed a special coating to protect the copper between drawing stages and after its production. The wire is pulled into an oxygen free atmosphere where it is given a protective coating. This process ultimately eliminates the oxidation and corrosion that destroys other audio cables. At Cardas, we use this urethane enameled conductor for the construction of our cables.

Cardas chassis/hook up Litz is composed of very fine strands of high purity copper wire insulated from each other with a fine polyurethane coating, then bundled to form a larger gauge wire. The varnish on each strand must be scrapped off before a good solder joint can be achieved. You can flatten the wire, then use a single edged razor blade held 85-90 degrees to "shave" the varnish off the wire. After removing most of the varnish, use a 40 watt solder iron and a bit of solder to burn off the rest. A scum will bubble up and harden after the wire cools off. A solder pot can also be used to burn the varnish off.