JANTZEN AUDIO

# Amber Z-Cap C&B

## PURE COPPER FOIL CAPACITOR

# PRODUCT FEATURES

The Amber Z-Cap “C&B” is the newest capacitor in our lineup.

The “C&B” stands for “Coupling and Bypass”.

Just as the larger capacity value Amber Z-Caps, the Amber Z-Caps C&B are super high-end pure copper foil capacitors.

The sonic “flavor” of copper foil is best described as giving an even more neutral/natural depiction of vocals and instruments.

This is paired with the enhancements in transparency and detail richness on an even higher level compared to many other capacitor types.

Compared to the larger capacity value Amber Z-Caps, this new capacitor model comes in smaller capacity values and with a thicker dielectric insulation allowing for a voltage rating of 630 volts DC, which means that the Amber Z-Caps “C&B” have sufficient voltage rating for amplifier applications.

The Amber Z-Cap C&B is a great choice when it comes to upgrading both coupling and power supply capacitors in tube (pre-amp) amplifiers and certain solid-state amplifiers and are very compact in size, which can be critical for application in the tight spacing within amplifiers.

In addition, when adding a smaller value Amber Z-Cap C&B (for example 0.01 µF) as a bypass capacitor in parallel to a high-quality series capacitor in a tweeter circuit on passive speaker crossovers, it may enhance performance.

# KEY PRODUCT NOTES

- Super high-end pure copper foil capacitors for upgrading coupling capacitors in tube amplifiers (pre-amp) and certain solid-state amplifiers

- High quality pure copper foil wound with high precision on specialized winding machinery

- Can also be used as a bypass capacitor in parallel to a high-quality series capacitor for the tweeter circuit on passive speaker crossovers

- Very compact in sizing compared to other 630 volt rated copper foil capacitors on the market, which makes a big difference for application in tight spacing of amplifiers

- For safety reasons and to eliminate the risk of short circuiting, the Amber Z-Caps C&B capacitors **do not** have the decorative anodized aluminum jackets (tubes) which are used on their larger value counterparts that are for use in passive speaker crossovers only.

- Extremely low ESR, SEL, inductance and dielectric absorption data

# TECHNICAL DATA (Part 1 of 2)

**Type:** Non polarized pure copper foil capacitor

**Dielectric:** Polypropylene film

**Construction:** Four-layer round tubular type axial leads

**Winding**: Pure solid copper foil spliced to polypropylene insulation film

**Voltage Rating:** 630VDC / 350VAC

**Test Voltage:** 150% rated voltage

**Electrodes:** Pure copper foil

**Contacts:** Non-inductive zinc thermally sprayed extended film

**Leads:** Tin plated oxygen free copper (99,99% purity)

**Capacity Range:** 0.01 µF to 0.47 µF.

**Capacity tolerance:** ±5% (on nominal value)

**Dielectric constant:** Non-polar dielectric

**Dissipation factor:** Extremely low

**Dielectric absorption factor:** ＜0.5% @20℃

# TECHNICAL DATA (Part 2 of 2)

**Dielectric thickness:** PB=5µm

**Equivalent series resistance:** Extremely low

**Self-inductance**: 0 nH

**Insulation resistance:** ＞100.000 MΩ@20℃

**Temperature coefficient:** -200℃x10$^{-}$6/℃

**Temperature Range:** -55℃to +85℃

**Metal layer thickness:** PB=0.3µm

**Metal layer conductivity:** PB =1.2 Ω/cm$^2$