

# JANTZEN AUDIO

## Alumen Z-Cap

PURE ALUMINUM FOIL CAPACITOR



# PRODUCT FEATURES

The Alumen Z-Cap is a high-end pure aluminum foil capacitor, designed specifically for passive crossovers (tweeters and midrange drivers).

It utilizes a much thinner dielectric insulation compared to the market standard.

A high voltage rating is not needed for application related to passive loudspeaker crossovers.

The usage of a thinner dielectric insulator allows for a capacitors with less “memory” and one that is much faster reacting.

The Alumen Z-Cap offers unparalleled value for money in terms of cost versus performance.

Compared to the Superior and Silver Z-Caps (Super MKP / double metallized polypropylene foil) capacitors, the Alumen Z-Cap will bring less brightness and a little more natural top end balance to your system.

Ideal for audio aficionados who prefer a slightly less bright system, while also hearing improvements in the overall naturalness/neutrality of the whole system.

**Due to the max. 100 volts DC voltage rating, we advise customers to be mindful when using Alumen Z-Caps for tube/valve and power amplifier application.**

**For upgrading the coupling capacitors in amplifiers, we instead recommend choosing our Superior or Silver Z-Caps (Double-foil Super MKP capacitors).**

# KEY INNOVATIONS

- We use the thinnest possible dielectric insulation to eliminate memory effect in the capacitor
- An extremely fast reacting capacitor
- Very low ESR, SEL, inductance and dielectric absorption data
- High quality pure aluminum foil wound with high precision using specialized winding machinery
- Specifically designed for the tweeter and upper mid-range sections on passive crossovers
- Can also be used as coupling capacitors for transistor amplifiers

# TECHNICAL DATA (Part 1 of 2)

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

**Dielectric:** Polypropylene film

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

**Winding:** Aluminum foil spliced to polypropylene insulation film

**Rated Voltage:** 100 VDC / 65 VAC

**Test Voltage:** 150% rated voltage

**Electrodes:** Pure copper foil

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

**Coating:** Gray plastic tape wrapped black resin, sealed in an anodized aluminum tube

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

**Capacity Range:** 100VDC from 1.0  $\mu\text{F}$  to 10 $\mu\text{F}$

**Capacity tolerance:**  $\pm 3\%$  (on nominal value)

**Dielectric constant:** Non-polar dielectric

**Dissipation factor:** Extremely low

**Dielectric absorption factor:**  $< 0.5\%$  @20°C

# TECHNICAL DATA (Part 2 of 2)

**Dielectric thickness:** PB=4 $\mu$ m

**Equivalent series resistance:** Extremely low

**Self-inductance:** 0 nH

**Insulation resistance:**  $> 100.000 \text{ M}\Omega @ 20^\circ\text{C}$

**Temperature coefficient:**  $-200^\circ\text{C} \times 10^{-6} / ^\circ\text{C}$

**Temperature Range:**  $-55^\circ\text{C}$  to  $+85^\circ\text{C}$

**Metal layer thickness:** PB=0.3 $\mu$ m

**Metal layer conductivity:** PB =  $1.2 \text{ }\Omega/\text{cm}^2$