

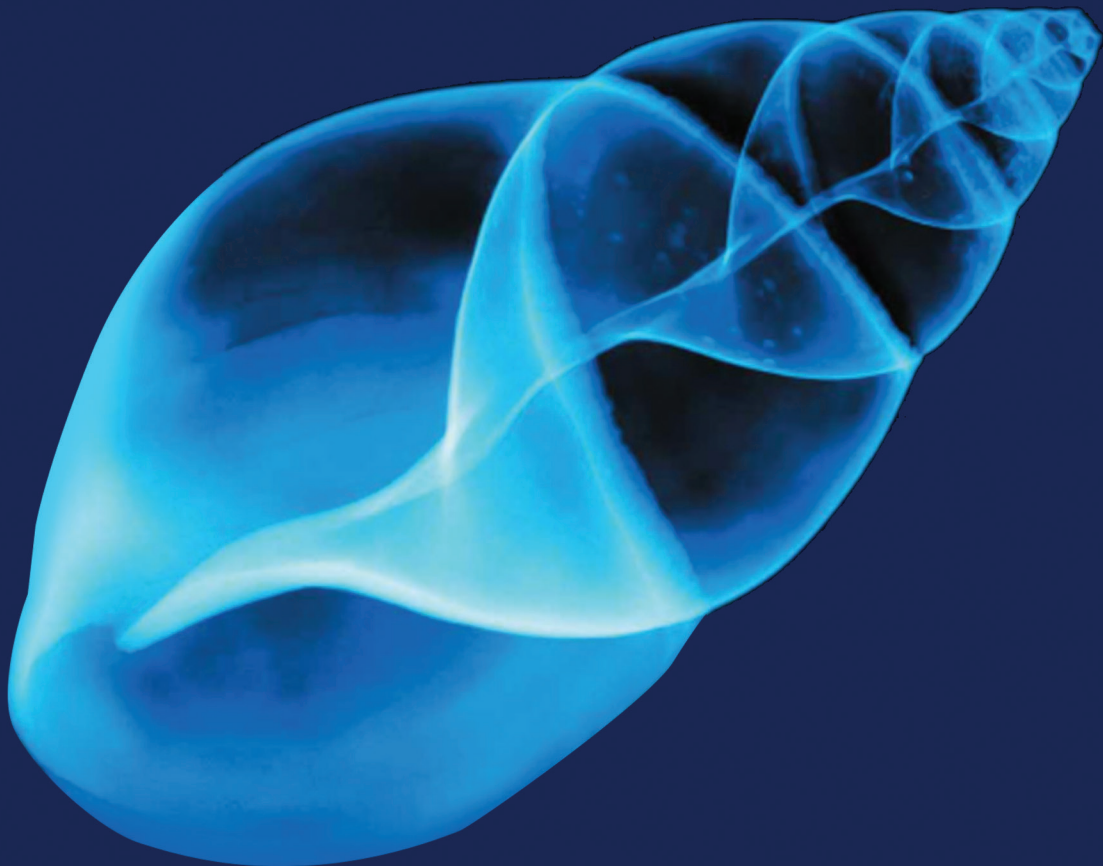
**ClarityCap**<sup>®</sup>

AUDIO GRADE CAPACITORS



# Hi-fi audio & professional capacitors for precision & depth

Hand-crafted in Wales, UK since 1974



Listen to the difference

[www.claritycap.co.uk](http://www.claritycap.co.uk)

# Hand-crafted in the UK since 1974

With in-house development and manufacturing of audio capacitors, ClarityCap® adds specialist expertise to make a clear difference to the precision and clarity of high-end audio.

This development resulted in the virtual elimination of internal sonic resonance, following a two-year research programme with the world-renowned Acoustics Research Centre at the University of Salford.

The introduction of CopperConnect® technology significantly lowers noise floor, improves dynamic range and provides greater spatial separation between different instruments and vocals.

Capacitance from the standard range is from 10nF to over 200µF, or up to 1000µF in a single capacitor for audio power supply.

## Fast and easy customisation

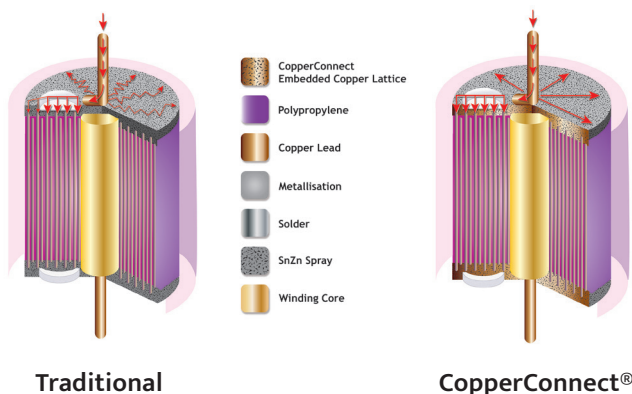
Every customer wants something different, so make your capacitors stand out by adding your company name, strapline and logo. Choose the colour of your tape, resin and printing to match your brand, and specifying your preferred material, length and diameter of the capacitor lead-out.



Customisation is fast, with six iterations being completed in just 3 weeks, to take a custom capacitor from initial specification through drawing, prototyping, customer approval and the start of UK-based manufacture.

## CopperConnect® technology

Developed by ClarityCap, CopperConnect® enables high-end audio to dramatically reduce grain boundary crossings and signal path resistance by embedding a copper lattice to the end connection. The effect is sharp, precise and takes the audio experience to a new level.



## Deep research and design

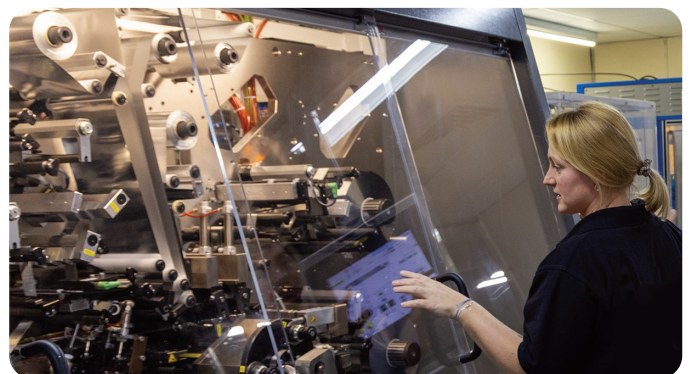
Each aspect of the design and manufacture of an audio-grade capacitor impacts audio quality. That is why every challenge is deeply researched and refined.

A two-year research programme, by ClarityCap and the Institute of Acoustics at the University of Salford, determined that there is an audible impact on sound quality, caused by mechanical resonance from a capacitor in a loudspeaker crossover.

The control of this resonance delivers greater audio clarity as well as spatial information. The noise floor is lower, there is more dark space around the audio signal, and a wider dynamic range.

## Specialist manufacturing

The manufacturing process uses a metallization pattern of pure aluminium on polypropylene film, with heat-treatment and high voltage to de-stress, remove air pockets, and harden the winding.



Feature	PUR ST	PUR S	CMR	MR	CSA	ESA	PX
CopperConnect®	10mm	10mm	1mm		1mm		
van den Hul® Silver Cable	•	•					
Ultra-low ESR	•••	•••	••	••		•	•
Acrylic Housing	•		•	•			
±3% Tolerance	•	•	•	•	•	•	
Custom Branding	•	•	•	•	•	•	•

# Discover audio precision with ClarityCap

## Reduce loudspeaker distortion

- Lower noise floor to improve dynamic range
- Greater spatial separation of instruments and vocals
- van den Hul® silver-coated, multi-strand cable
- 10mm CopperConnect® technology
- $\pm 3\%$  tolerance as standard
- Tape-wrapped or tubed to further reduce distortion
- $0.47\mu\text{F}$  to  $47\mu\text{F}$  at 250V to 800V



PUR

## Tighten crossover control

- $\pm 3\%$  tolerance as standard
- CopperConnect® technology
- Reduced grain boundary crossings and resistance
- Narrow film reduces Equivalent Series Resistance (ESR)
- $1.0\text{mm}^2$  tinned oxygen-free copper leads
- 100nF to  $18\mu\text{F}$  at 400V, 630V



CMR

## Virtually eliminate sonic resonance

- Spatiality and excellent separation
- $\pm 3\%$  tolerance for tight crossover control
- Non-standard polypropylene film
- Ultra-pure aluminium metallisation
- Acrylic tube reduces resonance
- Hand-soldered tinned copper terminals
- 10nF to  $35\mu\text{F}$  at 400V, 630V



MR

## First capacitor with CopperConnect®

- Reduce grain boundary crossings
- Minimise signal path resistance
- Lower levels of ESR
- $1.0\text{mm}^2$  tinned oxygen-free copper leads
- 2.2nF to  $180\mu\text{F}$  at 250V, 630V



CSA

## Reduce resonant sonic outputs

- Polypropylene with pure aluminium metallisation
- $\pm 3\%$  tolerance as standard
- Thermal arc spray of end connection
- Standard silver tape with black resin
- Custom tape and resin colour options
- 10nF to  $155\mu\text{F}$  at 250V, 630V



## Improve performance-to-price ratio

- Low self-inductance and ESR
- Low dissipation and dielectric absorption
- Standard blue tape with blue resin
- Custom tape and resin colours
- $0.15\mu\text{F}$  to  $47\mu\text{F}$  at 250V



PX

## Replace valve amplifier electrolytics

- Lower ESR and inductance
- Self-healing with unique metallisation
- Dry construction to maintain performance
- Unpolarised for easy assembly
- Decouples high-frequency power-supply noise
- $39\mu\text{F}$  to  $750\mu\text{F}$  at 450V to 1100V
- Voltage above 1800V available



TC



# The ClarityCap difference

## Loudspeakers

Achieve more reliable crossover performance with the reduced component resonance, while loudspeaker frequency response remains as designed.



## Valve amplifiers

Enable reliable high-voltage power-supply operation with the improved long-term stability of metallised film technology. The low ESR and ESL of the TC capacitors provides excellent frequency response, minimising voltage ripple even in low-frequency playback.



## Guitar amplifiers

Already used in prestige and high-performance guitar amplifiers, ClarityCap capacitors bring together high specification, consistency and build quality to create exceptional guitar treble.



## Phono-amps

Protect low-level signals from noise before amplification in phono-amps and preamps with capacitors which use the highest quality raw materials and carefully controlled manufacturing processes.



## Worldwide support & distribution network

Contact Us For More Information

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**charcroft**  
ELECTRONICS

ClarityCap is part of the Charcroft family of specialist companies

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