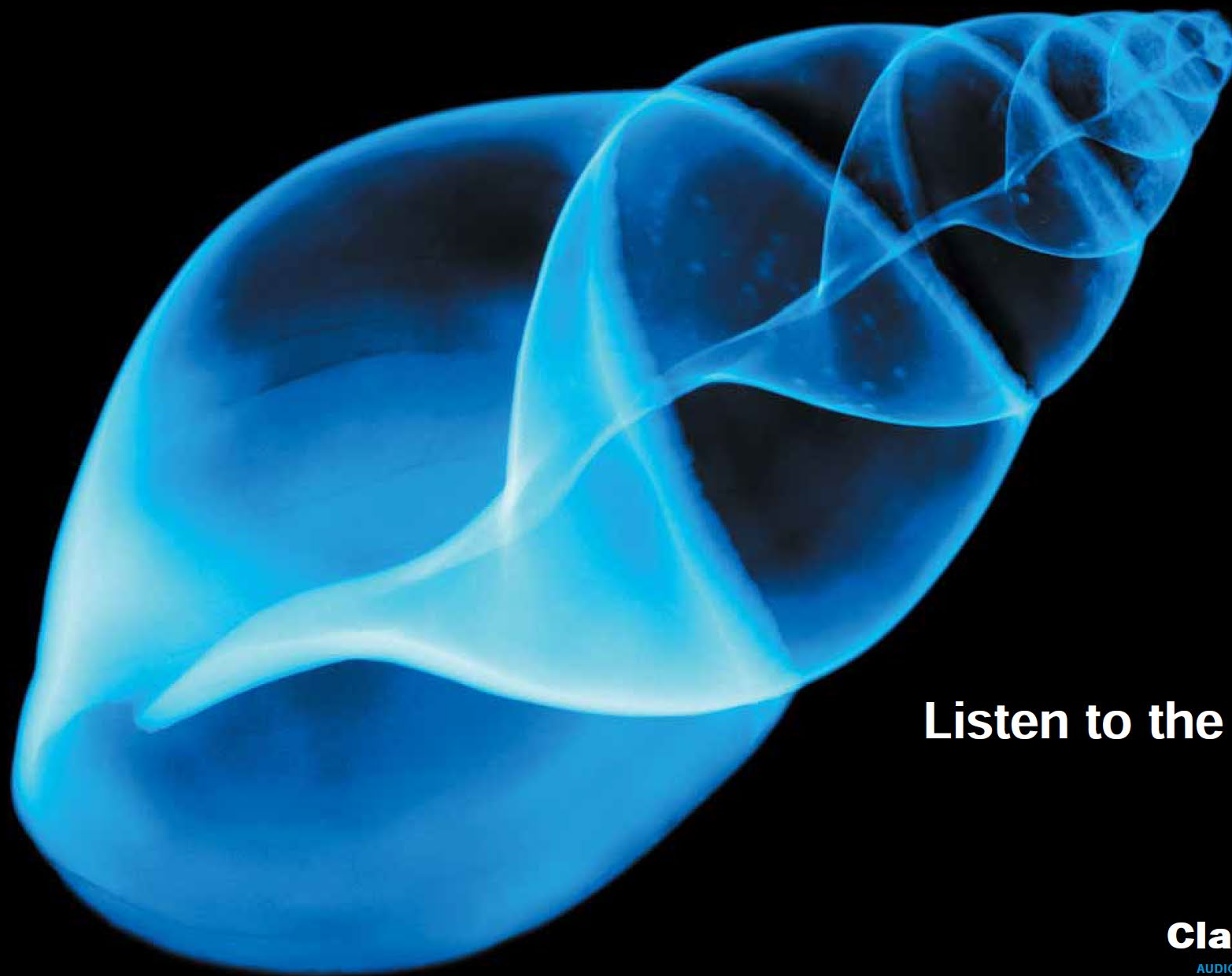




Listen to the difference



ClarityCap has manufactured high quality audio grade capacitors for the last 25+ years; more and more people are appreciating the difference that a ClarityCap capacitor makes to sound quality.

Over this period our reputation for supplying capacitors to the highest sonic performance has spread worldwide. We have a multitude of European and North American customers, as well as customers as far afield as Australia, Indonesia, Vietnam and Brazil – confirming our position as a truly global brand.

Our model range has been developed by our Engineers after extensive consultation and collaboration with Engineers at several leading audio equipment manufacturers. This has resulted in a range of components offering unprecedented sonic performance.

The Original ClarityCap® Range



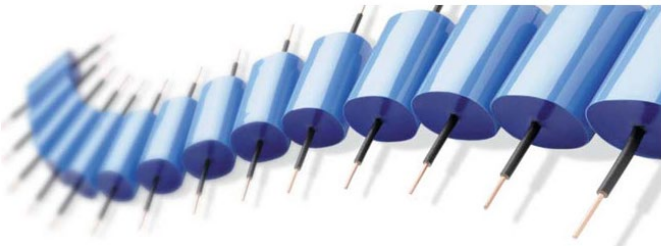
SA



SA* 630Vdc Hand soldered Copper leads. Non-Pressed design. Black tape & fill. Developed in conjunction with a renowned loudspeaker manufacturer. Remains highly regarded and used as a benchmark to measure others against.

The ESA & CSA are the current series offered, built on the success of the SA.

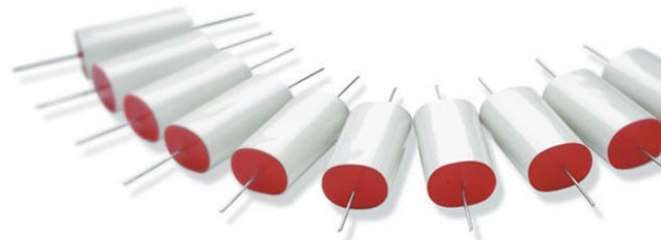
PX



PX 250Vdc Hand soldered non-insulated Copper lead, Blue tape and fill. Developed as a further improvement on the PWA.

Provides established, entry-level performance for bass/mid-range crossover.

PWA



PWA* 160Vdc General Purpose. Pressed oval. Welded CCS Pins. White tape, red fill.

Established for many years as an economical component with improved sonic performance over most overseas brands. Successfully used by numerous customers for entry-level designs.

*Not for new designs – existing customers supported



Post-Research ClarityCap® Range



MR



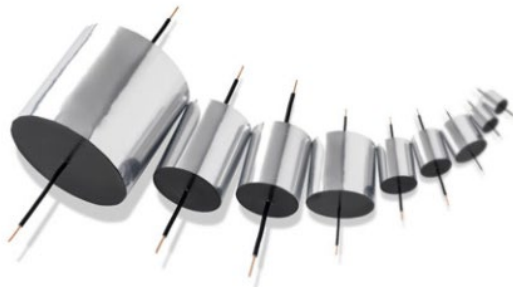
MR (Minimum Resonance) 400/630Vdc Blue Acrylic Tube, White Fill

The culmination of a groundbreaking 2-year research program with the University of Salford which investigated ways of reducing mechanical resonances inherent in a wound capacitor to hitherto unachievable levels.

The component is manufactured in such a way as to substantially reduce the negative effects of resonance on sonic quality – inherent in a wound component.

Manufactured from metallised polypropylene film, the component is then encased in an acrylic tube and encapsulated with epoxy resin to provide a rock-solid performance.

ESA



ESA (Enhanced-SA) 250/630Vdc Silver-Tape, Black Fill

The ESA capacitor benefits from the manufacturing innovations of the research program, but without encasement in an acrylic-tube.

Offering substantial sonic improvement over the original SA Series and an economic alternative to the no-compromise MR range, the ESA has been one of the most widely accepted audio capacitors in recent years.



CopperConnect™ Technology

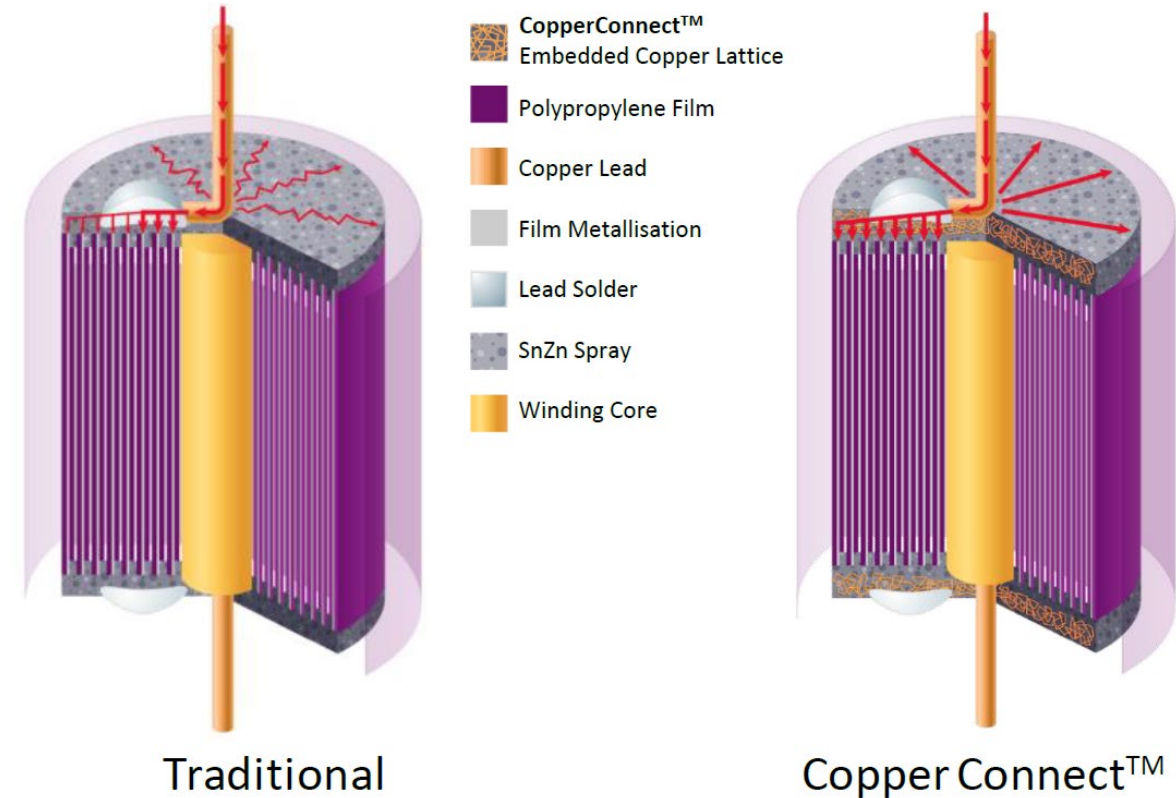
The unique CopperConnect™ technology addresses an unexplored area of audio capacitor performance.

Dielectric, electrode and lead wire materials have all been extensively optimised over the years.

Connection of capacitor electrodes to the terminal-lead has always relied on a thermal arc spray of tin-zinc, which results in hundreds of thousands of oxidised grain boundaries which introduce distortion and phase shifts at boundary crossings and increased propagation impedance over the diameter.

CopperConnect™ technology introduces a copper lattice to the end connection, dramatically reducing grain boundary crossings and signal path resistance, allowing the signal to propagate more freely to each electrode layer & better utilise all the capacitor windings.

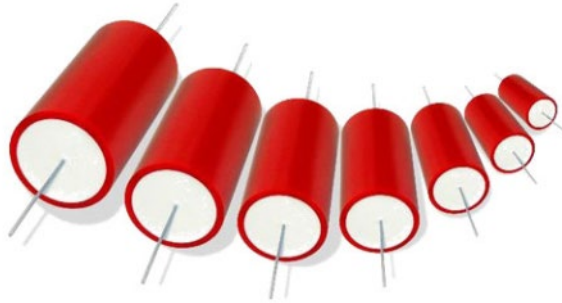
This innovation allows capacitor designs to achieve new levels of audio performance.



CopperConnect™ ClarityCap® Range



CMR



CMR MR with CopperConnect™ & 1.0mm² O-free copper leads.

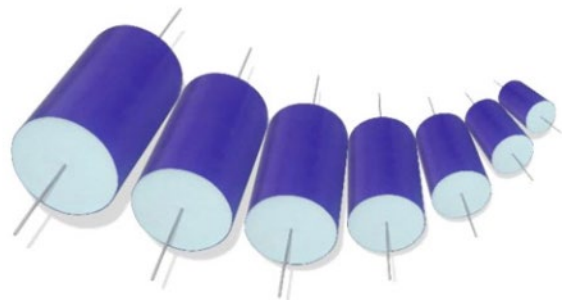


Taking inspiration from the highly regarded MR range, the CMR employs the same micro-phonics reducing series film construction and acrylic tube damping.

As well as improving signal flow to the capacitor windings, CopperConnect™ enables designs to employ narrower films for reduced ESR without introducing a corollary increase in end connection impedance.

The philosophy of eliminating as many boundaries as possible is extended to the use of premium grade 1.0mm² tinned oxygen free copper leads.

CSA



CSA ESA with CopperConnect™ & 1.0mm² O-free copper leads.

Building on the success of the ESA range, the CSA employs the same carefully researched process steps to provide a reduction in resonance, CopperConnect™ technology & premium grade 1.0mm² tinned oxygen free copper leads.



Additional ClarityCap® Offerings

DTAC



DTAC 630Vdc SMF Type, High Current M8 Soldered Copper Terminal

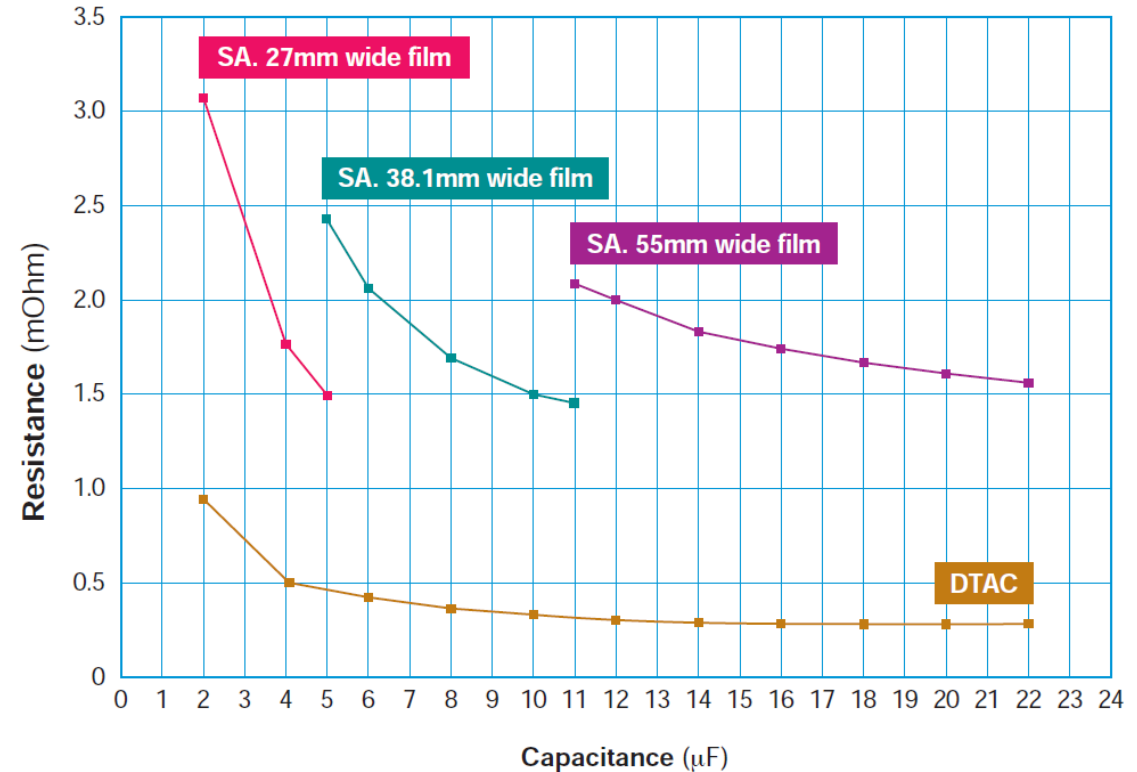
Engineering research proved that a dramatic change in form-factor, utilising a film with smaller width, provided a significantly lower ESR measurement.

A narrow 10 μ m (630Vdc) polypropylene film with a special spray and heat treatment contribute to the exceptional performance of this capacitor.

These measures combined with hand soldered M8 male or female terminations ensure that the ESR is greatly improved when compared to the traditional axial leaded components.

Ohmic Resistance (non-dielectric)

Comparison with standard SA with 0.5 metal thickness

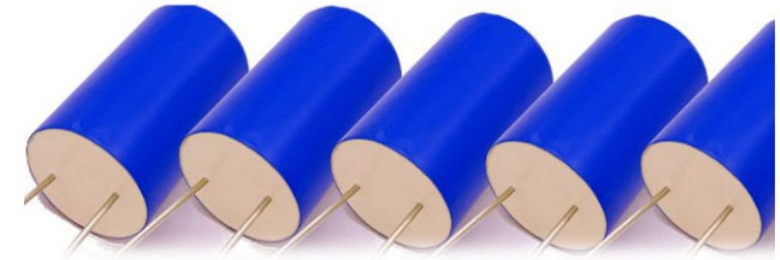


Additional ClarityCap® Offerings



- ClarityCap® **TC** Series was specifically developed to replace electrolytic capacitors, particularly in power amplifier applications
- Special series winding provides HV rating and reduces resonance
- ESR and inductance are a fraction of the equivalent electrolytic component, resulting in instant-power delivered precisely when it's needed
- Dry construction – retained performance throughout lifetime of the amplifier, no electrolytic to dry out which can cause cap loss and increase in ESR
- Radial form-factor, non-polarized with high-voltage ratings from 450Vdc up to 1100 (additionally up to 1800V) is an option

TC



TC Electrolytic Replacement

- Unique film metallisation
- Series wound
- Low ESR/ESL,
- 2 or 4-pin options
- 450-1000V as standard
- Up to 1800V optional
- 25uF – 750uF

ClarityCap: A different perspective

– multiple customisation options



Resin options available



Tape options available



Why use ClarityCap?



- ClarityCap has been developed in conjunction with leading industry manufacturers
- Wide standard product range offering a selection of capacitance and voltage values
- Agile, highly flexible production process, allowing custom-manufactured components
- Resin & tape colour and custom printing options available, including OEM logo
- Worldwide product support from an established distribution network
- Already used by some of the world's leading names in the loudspeaker industry

But above all, the clarity of sound our capacitors give to your products...*listen to the difference*



ClarityCap Miners Road Llay Industrial Estate
Wrexham North Wales United Kingdom LL12 0PJ

+44 (0)1591 610 408
sales@charcroft.com
www.claritycap.co.uk

Charcroft Electronics

