

## E3C-CA

### Electrolytic Cell Connection Compound – Chloro-alkali Grade

E3C-CA has been specially developed for use on connections and switches in electrolytic, electro-plating and anodising plants. Its unique silicone free formulation protects metal interfaces from oxidation and corrosion in harsh chemical environments whilst maintaining a low and consistent contact resistance, thereby preventing build-up of unwanted heat and minimising energy consumption.

- Reduces contact resistance and mV drop at all connections and switches
- Reduces temperature at all contacting surfaces; reduces energy losses given off as heat
- Improves plant reliability and productivity; reduces maintenance costs
- Excellent corrosion protection and oxidation stability across a wide temperature range

**Approvals**                      **RoHS Compliant (2015/863/EU):**                      **Yes**

#### Typical Properties

Colour	Cream
Density (g/ml)	0.85
Temperature Range (°C)	-50 to +160
Evaporation Weight Loss (% 7 days @ 100°C)	<1.5%
Evaporation Weight Loss (% 7 days @ 125°C)	1.6%
Copper Strip Corrosion (IP154 / ISO 2160)	≤1b
Drop Point (IP32 / ISO 2176 (°C))	>200
Cone Penetration Un-Worked (ASTM D 217 @ 20°C)	325
Cone Penetration Un-worked (ASTM D 217 @ -40°C)	225
Cone Penetration Worked (ASTM D217, 60 strokes @ 20°C)	330
Consistency (NLGI)	1
Bleed / Separation (IP121)	<5%
Silver Corrosion (DIN 51759, 3hrs @100°C)	No change
Plastics Compatibility - ABS	Test
Plastics Compatibility - PC	Test

<u>Packing</u>	<u>Order Code</u>	<u>Shelf Life</u>	<u>Container Dimension</u>
10kg Bulk	EE3C-CA10K	72 Months	254mm (Diameter) x 330mm (Height)

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All information is given in good faith but without warranty. Properties are given as a guide only and should not be taken as a specification.

Electrolube cannot be held responsible for the performance of its products within any application determined by the customer, who must satisfy themselves as to the suitability of the product.

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BS EN ISO 9001:2008  
Certificate No. FM 32082

## Directions for Use

E3C-CA Compound should be applied to contacting surfaces either manually, and preferably with friction, or using a fully automated application process incorporating a follower/pusher plate with the dispensing system.

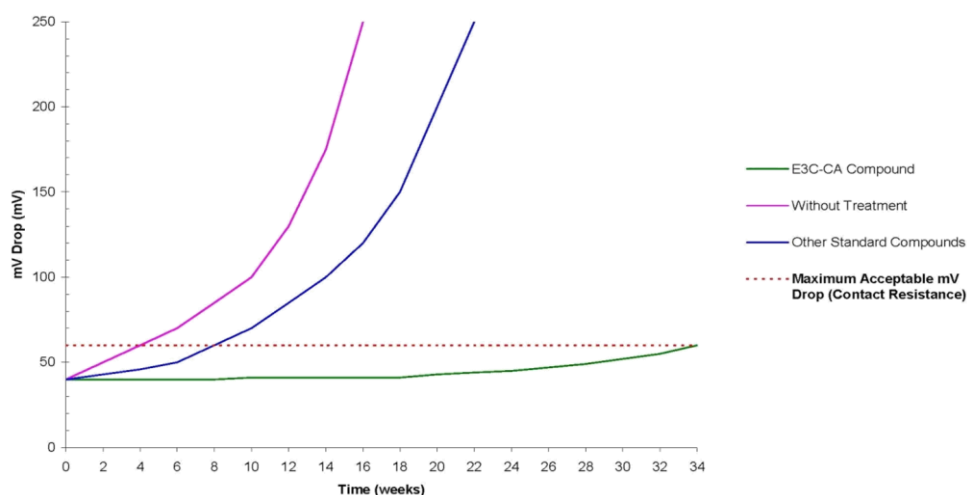
## Typical Product Applications

The use of E3C-CA significantly improves and maintains current flow and is particularly suitable for low voltage/high current circuits (e.g. 5V-24V at 25,000A-250,000A). By stabilising and minimising contact resistance at all connection points, use of this specialist compound provides an even current distribution and exceptionally low mV drop between contacting surfaces. E3C-CA provides superior electrical performance to give optimum electrical process conditions.

Regular application of E3C-CA minimises production downtime required for cleaning contacts and connections by preventing the build-up of tarnish and corrosion on the surfaces, even in harsh conditions such as chlorine and high acidity environments. It has been specifically designed to offer superior performance as a non-melting compound, preventing contamination of the electrolyte. It will therefore remain unaffected by the working environment without evaporating or 'drying out' under normal conditions. E3C-CA has excellent material compatibility however, as in all applications; it is recommended that compatibility tests are carried out on sensitive materials, particularly thermoplastics, prior to large scale application.

E3C-CA Compound prevents corrosion and contamination, and improves electrical contact on anode and cathode bars and rails, V-joints, pick-up shoes, rack contacts, bus-bar joints etc.

**Typical mV Drop Readings for Connections in a ChlorAlkali Plant**  
NB. Increasing mV drop indicates a rise in connection temperatures



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