

# Specialists in Protective Coatings for Electronics and Manufactured Components



## Head Office

5 Verda Park  
Wallingford  
Oxfordshire, OX10 9SJ

## Connect

+44 (0) 1491 824 788  
sales@chilternconnections.co.uk  
www.chilternconnections.co.uk

## Social

@chilternconnections







# Conformal Coating

As leading conformal coating specialists, we provide high-quality conformal coating services for the protection of printed circuit boards (PCBs) used within a wide range of environments, preventing PCB corrosion and ultimately extending their working life. We offer acrylic, polyurethane, epoxy, silicone, UV cure and two-part coatings and provide a number of application methods from dipping, spraying, selective coating, and hand brushing to suit client requirements.



### Cleaning

We clean PCBs using an industrial washing machine or handwash components that cannot be submerged.



### Masking

We protect key components by applying a selection of tapes and gels.



### Application

We use a range of application techniques to apply coatings, from manual processes to automated selective coating.



### Curing

We dry coatings either at room temperature or at a specified temperature using an industrial oven.



### Inspection

Throughout the coating process we inspect each component to ensure each step has been performed accurately.



### Coating Removal

Occasionally we have to remove or rework coatings. We have the tools to strip coatings from individual components to entire PCBs.



# Potting & Encapsulation

If your electronics are subjected to strong chemicals, extreme temperatures, mechanical shock or liquid immersion, we would recommend our potting service to protect your components. This is where the PCB is fully encapsulated by a resin – usually polyurethane, epoxy or silicone.

Our experienced team has extensive knowledge in materials, production methods and operating conditions to recommend the correct resin for your PCB, and apply it effectively, without compromising component design.

Our process has on-going inspections to ensure a smooth, clear finish throughout, with no imperfections.



## PCBs Inspection

We receive your PCBs with the appropriate housing connected. We inspect them to ensure the housings are positioned correctly and the PCBs are clean and ready for the resin.



## Mixing & Application

We thoroughly mix the resin and catalyst to precise ratios and then accurately dispense it to our customer's specification. Our application methods ensure there are no air pockets, and all gaps are filled.



## Bubble Removal

Removal of bubbles from the resin is essential. We have a number of processes for this including using vacuum, vibration plates, or heat.







# Conductive Coating

Do you need to shield against electromagnetic or radio frequency interferences? Our conductive coatings help protect electronics against these disturbances. We have partnered with MG Chemicals and use their metallic filled polymers to create a Faraday cage around your valuable components. This blocks any interference, ensuring full functionality of your equipment. We have several materials we can apply, and our experts would be happy to advise on which would be most suitable for your application.



## Preparation

Where necessary, we can degrease parts and remove dust prior to coating.



## Masking

We protect key areas by applying a selection of tapes or we can manufacture a jig to ensure only certain areas are coated.



## Application

We spray our conductive coatings with gravity fed spray guns to ensure a smooth and even finish.



## Curing

Conductive coatings are left to air dry for best results.



## Inspection

Throughout the coating process we inspect each component to ensure each step has been performed accurately.



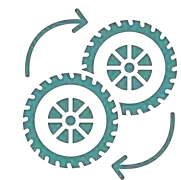
# Small-Parts Coating

Protective coating is not just for electronic components. We provide coatings for corrosion protection, insulation purposes, and lubrication. We can coat mass-produced small-parts consistently and evenly with the coating to match your specification. From delicate components to complex geometries, we can help.



## Cleaning

To ensure good adhesion to the surface of the small-parts, they are thoroughly cleaned to remove oils, greases, silicones, etc. If necessary, they are primed to prepare them for coating.



## Application

All the small-parts are tumbled gently in machines and sprayed evenly with the applicator. The rotation of the parts ensures even exposure and coating thickness.

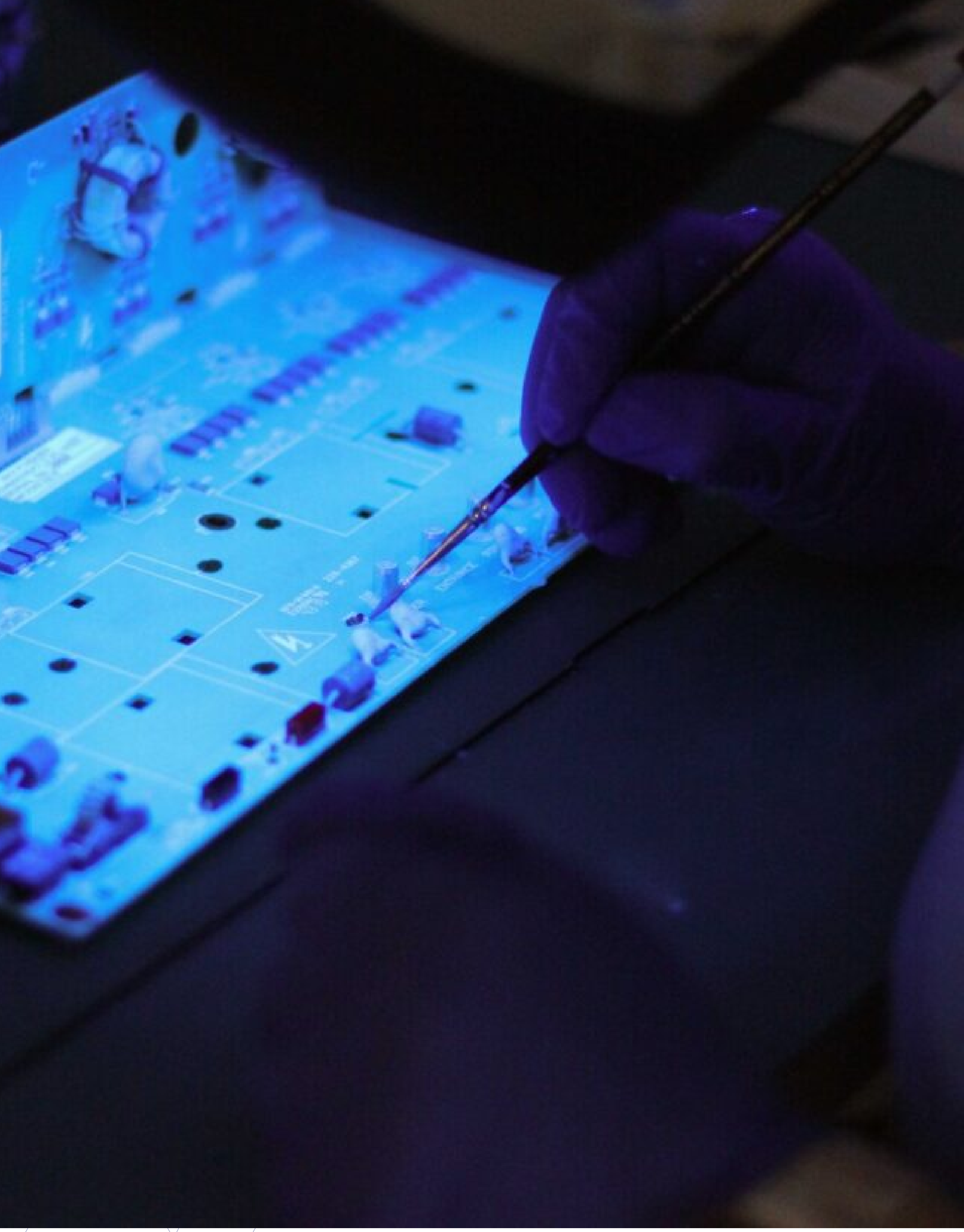


## Curing

The machines are set to a specific temperature, predetermined by the applied material. This means that the material is cured and dried during the application process, so all parts are ready once application is complete.







# Our Partners

We are proud to partner with leading industry experts – from chemical coatings and silicones to machinery and production equipment.





# Distribution Services

As well as our protective coating services, we also have a large distribution provision.



## ESD Products

We are a distributor of AntiStat ESD consumables. Whether you need grounding equipment, ESD flooring, inspection lamps or static safe shipping materials, you can count on us. We offer full technical support and advice to assist our clients in making the correct choice for their specific applications.



## Stock Management

For larger accounts, we can offer a stock management service, providing you with a reliable supply of material.



## Complete Product Range

We work closely with our clients on new and existing projects, helping to identify the materials and dispensing methods required for their specific application. From silicones and adhesives through to resins and lubricants, we can provide it all for your in-house coating projects.



## Repacking

If the material you need doesn't come in the size you require, we have the ability to repack products into a format that meets your dispensing requirements.







## Who Are We?

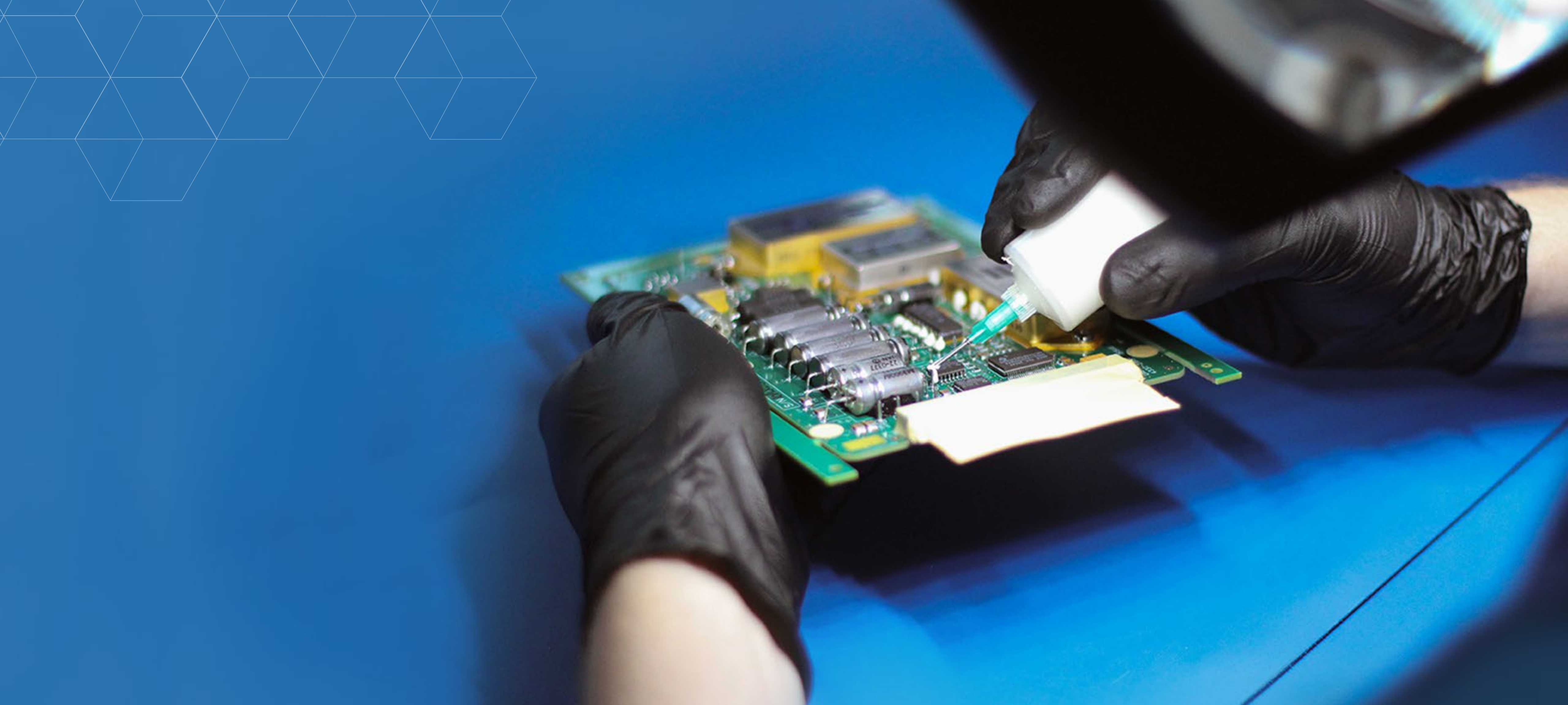
Trading since 1990, we have become a leading specialist organisation in protective coating solutions and grown to become a well-trusted distributor of a wide range of materials.

We are a family run engineering company based in the Chilterns, UK and have developed an outstanding reputation for tailoring complete solutions to meet customers' unique requirements worldwide. So, whether you require the best protection for your PCBs, or need practical, scientific advice on materials or equipment, our team of highly experienced consultants will work with you to find the most innovative products and solutions to meet your needs.

To demonstrate our commitment to quality and customer satisfaction, we are ISO 9001 certified. Our robust Quality Management Systems ensure you get the best products and service, every time.

Our enthusiasm and attentiveness doesn't stop there. Good environmental management is integral to our business. That's why we have developed a meaningful Environmental Policy that is committed to reducing our environmental impact and continually improving our environmental performance.





**Head Office**

5 Verda Park  
Wallingford  
Oxfordshire, OX10 9SJ

**Connect**

+44 (0) 1491 824 788  
sales@chilternconnections.co.uk  
www.chilternconnections.co.uk

**Social**

@chilternconnections

