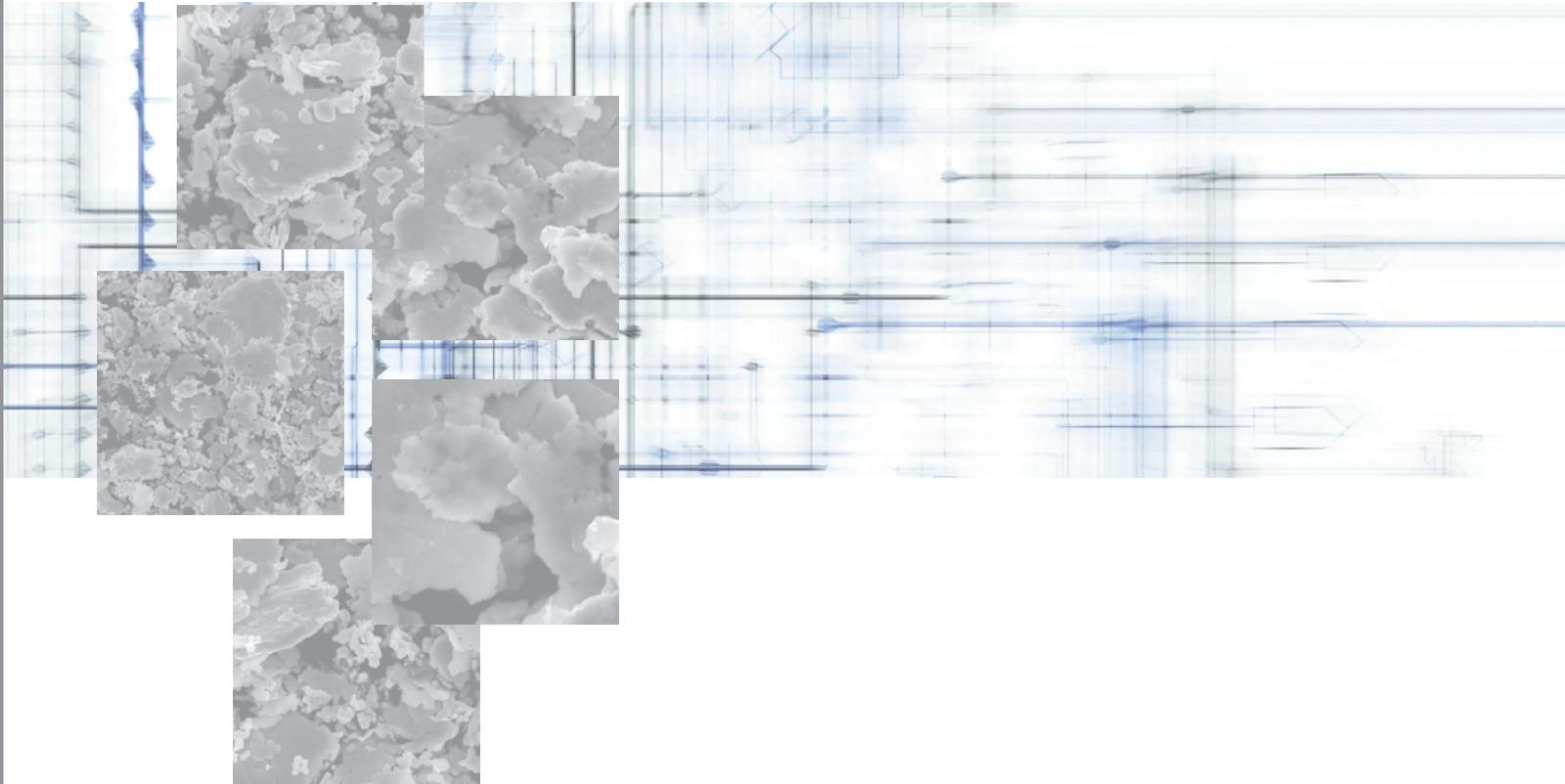




**Connecting the future
with specialty electronic materials.**

 **CREATIVE
MATERIALS**



**We are driven to excellence
in innovation and exceptional service.**

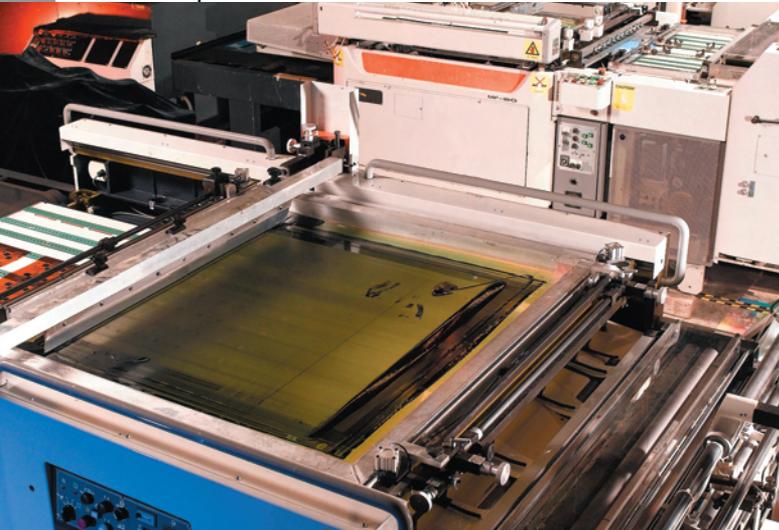
At Creative Materials we take great pride in our technical innovations, consistently high quality products and responsiveness to customer needs.

Founded in 1987, Creative Materials develops highly conductive adhesives, coatings and inks that can be applied to a variety of substrates with extraordinarily high print definition. Today, our in-depth experience with conductive filler technology, particle size, and particle geometry allows us to fine-tune the performance, as well as the application process and cure cycle, to best meet our customers' product requirements.

We work closely with our customers to reduce the time to market for new products – from initial prototypes to scale-up of production. Our experience spans unique applications in electronics, solar, biotechnology, microelectronics, and in the electrical, medical, automotive, telecommunication and aerospace/defense markets. Creative Materials has worked with customers large and small to create unique product solutions for global markets.

www.creativematerials.com

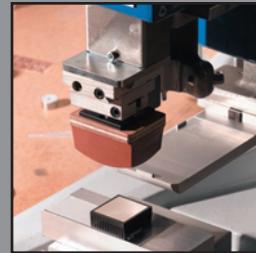
Screen printing conductive circuits



Membrane switch circuitry



Pad printing thermally conductive adhesive



Medical electrodes



**Proven formulation expertise.
Cost-effective application solutions.**

We are an experienced technical resource. Our executive leadership combines over 80 years of experience in the adhesives industry. Our staff has developed over 1000 products for unique application requirements. And because we understand market-determined specifications and testing parameters, we are very responsive to customers' needs.

Our core product formulations include: microelectronic grade adhesives; electrically conductive adhesives, coatings and inks; anisotropic conductive adhesives; dielectric adhesives, coatings and inks; thermally conductive adhesives; encapsulating and potting compounds. Application specific products for unique process requirements are the heart of our business. And all applications are confidential.

Expertise from prototype to production.

At Creative Materials, we have built a reputation for excellence by providing custom formulations that meet exacting production requirements and customers' specifications at every stage of development – from prototype to production.

Our capabilities include:

- Specialty formulations of polyimide, silicone, epoxy, urethane, acrylic and other proprietary polymers.
- Conductive filler materials that include silver, nickel and carbon, as well as more unusual materials such as gold, palladium, silver-plated copper and platinized carbon.
- Conductive or insulation properties tailored to specific customer needs and production processes.
- Compatible product families of conductive materials and dielectrics formulated for long-term reliability.
- B-stageable adhesives for pre-application of high-performance adhesives prior to the assembly processes.
- Optimized formulations suited to specific application techniques, such as pad printing, screen printing, flexographic and rotogravure printing, syringe dispensing, jet dispensing, direct write, spraying and dipping.



Flex circuit production

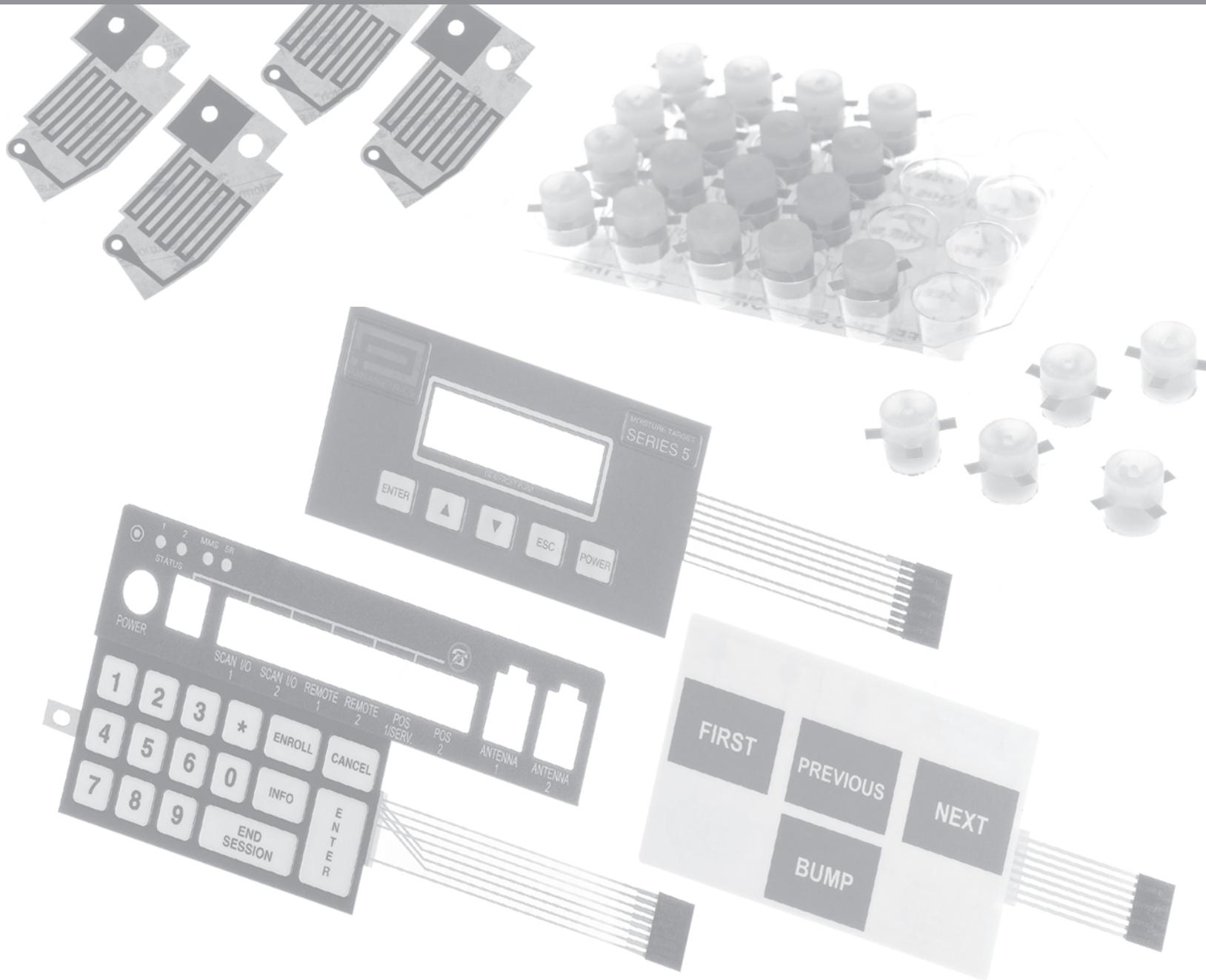
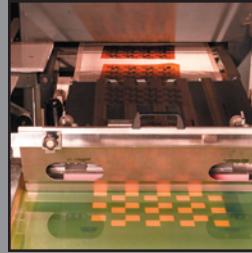
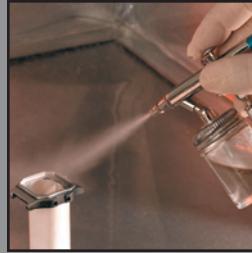
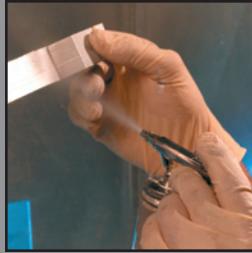
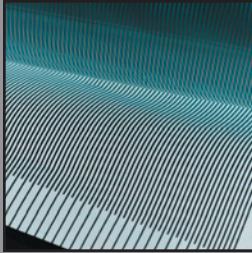
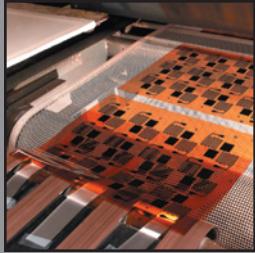
Conductive circuitry with dielectric coating

Application of EMI/RFI shielding on flex cable

Spray application for enhanced platability

Deep potting electrical connector

Printing dielectric coating



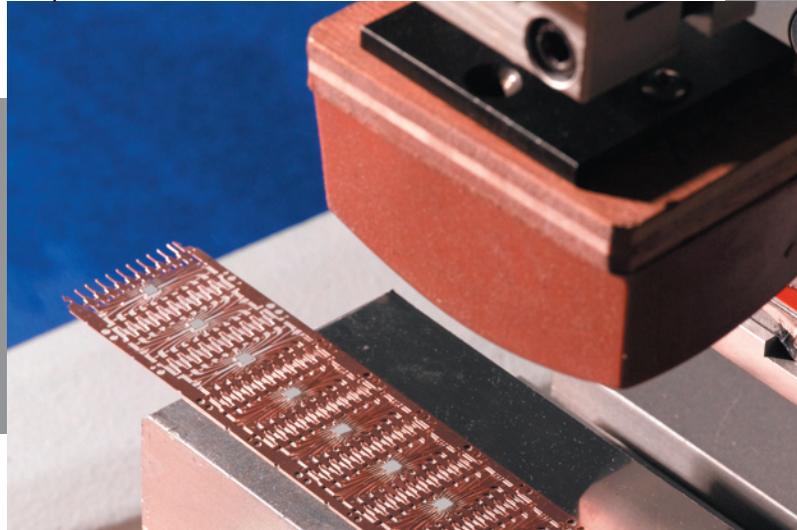
Plating enhancement

Precise circuitry definition

Pad printing silver ink on medical tab



Pad printing silver epoxy on copper lead frame



Proven application solutions that connect design with production.

Our custom-formulated conductive adhesives, coatings and inks, along with encapsulants, are used in a variety of global applications that provide cost-effective design solutions for demanding production requirements. A few examples of these applications are:

- Membrane switches /thick film polymer circuitry.
- EMI/RFI shielding of flex cables and enclosures.
- Medical devices /EKG, ECG, and TENS electrodes.
- Touch screens and electro-luminescent panels.
- Encapsulating/potting of electronic components.
- Bonding of flex circuits to printed circuit boards.
- Printed circuit board fabrication.
- Underfill and glob top materials.
- Transdermal drug delivery.
- Capacitor fabrication.
- Attachment of heat sinks for LEDs.
- Solar cells: grid line inks and ribbon attachment adhesives.
- Seed layers for plating.
- Die attachment.
- SMD attachment.
- Thin, flexible batteries.
- Aerospace materials.
- Flexible heaters.
- Biosensors.

ISO 9001 global quality standard.

Exceptional quality and process reproducibility ensure consistency and uniformity in design, products and services. From trial quantities to full-scale manufacturing, our products are held to the highest standards of consistency and reliability.

Responsiveness to customers' needs.

Our clients are our business partners, and our goal is to exceed their expectations with experienced application development, consistent, high-quality products, and responsive customer service. We have established long-term relationships with our customers as technical partners for specialty electronic materials. We help connect their designs with our proven, custom formulations that enable their products to be successful on a global scale.

Want to know more?

To find out how Creative Materials can help your company develop cost effective solutions for the most challenging applications, call or visit us at:

800-560-5667

www.creativematerials.com

Or e-mail our technical group at:

appsupport@creativematerials.com

www.creativematerials.com



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