



Indium Corporation

From One Engineer to Another®

Our Goal

Increase our customers' productivity and profitability through premium design, application, and service of advanced materials.

Our Basis for Success

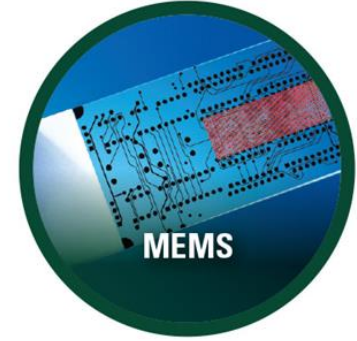
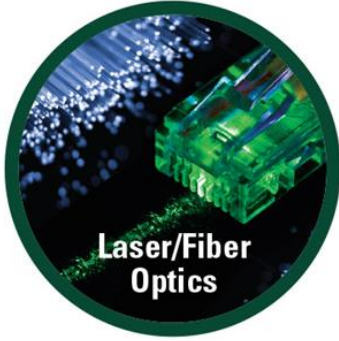
- Excellent product quality and performance
- Technical and customer service
- Cutting-edge material research and development
- Extensive product range
- Lowest cost of ownership

From One Engineer to Another®

Indium Corporation's scientists, application engineers, and technical support engineers work closely with our customers to develop custom solutions to their technical problems and optimize their processes to:

- Increase yields
- Improve customer satisfaction
- Increase revenues
- Reduce defects
- Deliver high value and return on investment

Markets Served



By the Numbers



- More than **80 years** of consistent growth
- **800** employees
- **12** facilities
- **High quality earnings**
- **Low debt position**
- **>60%** of revenue outside the USA

Manufacturing Excellence

Quality Certifications/Compliance/Policies

- ISO 9001:2008
- ISO/TS16949:2009
- REACH
- RoHS
- IMDS
- International Traffic in Arms Regulations (ITAR)
- California Transparency in Supply Chains Act
- System for Award Management (SAM)
- Conflict Minerals Policy
- Corporate Quality Policy
- Corporate Safety Policy
- Environmental Policy

Technology Leadership

- **Indium Corporation** strives to align its technology roadmap with our strategic partners in each of our critical markets.
- **18 PhDs** actively researching joining and bonding materials.
- We deliver products today for tomorrow's technology.



Recognition

Customers Awards

- Intel (Preferred Quality Supplier Award)
- Celestica (Total Cost of Ownership Award)
- Shinwa (Best Supplier Awards)
- Samsung (Superior Vendor Award)

Leadership Awards

- Frost and Sullivan (four times)
- Business of the Year

Recognition

Product Awards

- Indium10.1 and Indium10.1HF solder pastes
- Indium8.9 and Indium8.9HF solder pastes
- LV1000
- Heat-Spring®
- BiAgX®
- InFORMS®



The Indium Way

Our Guiding Tenets

Respect. Appreciation. Achievement.

Indium Corporation is active in our local communities through a number of events and organizations:

- Participating
- Volunteering
- Sponsoring
- Mentoring
- STEM outreach

History of Success



 <p>1926 PATENT</p> <p>The first indium electroplating processing patent is awarded to William S. Murray and Associates of Oneida Community, Ltd. By 1934, William S. Murray and Daniel Gray had developed an economical indium plating bath.</p>	<p>MARCH 13 1934 FOUNDED</p> <p>Indium Corporation (originally known as The Indium Corporation of America) is founded at 805 Watson Place, Utica, NY, USA. President William S. Murray, Vice-President J. Robert Dyer, Jr., Technical Director Daniel Gray</p>	 <p>1938 INDIUM-TREATED BEARINGS</p> <p>J. Robert Dyer, Jr. develops the process technology and plates the first indium-treated aircraft engine bearing.</p>	<p>1952 SOLDER PREFORMS</p> <p>Indium Corporation develops a commercially-viable process for the manufacture of precision solder preforms, enabling the mass production of alloy-junction transistors.</p> 
<p>1977 SOLDER PASTES</p> <p>Indium Corporation begins the development of solder pastes.</p> 	<p>CAPABILITIES 1982</p> <p>Indium Corporation initiates the development of manufacturing capabilities for spherical solder powder production.</p> 	<p>SPACE 1989–1990</p> <p>Indium Corporation participates in experiments aboard multiple space shuttle missions.</p> 	<p>1992 INTEGRATED® SOLDER PREFORMS</p> <p>Integrated® Solder Preforms are developed and introduced.</p>
<p>1997 SEPTEMBER 1 GREG EVANS</p> <p>Greg Evans joins the company in 1991 and is named President of Indium Corporation in 1997.</p> 	<p>2014 MARCH 13 80 YEARS</p> <p>Indium Corporation celebrates 80 years of technology innovation and growth.</p> 	<p>LV1000 2015</p> <p>Indium Corporation earns CIRCUITS ASSEMBLY's NPI Award for its LV1000 flux coating for solder preforms.</p>	<p>2016 SERVICE EXCELLENCE AWARD</p> <p>Indium Corporation wins the CIRCUITS ASSEMBLY Service Excellence Award for Materials, for demonstrating the highest performance across the areas of Technology, Responsiveness, Dependability, Quality, and Value for Price.</p> 

Global Footprint



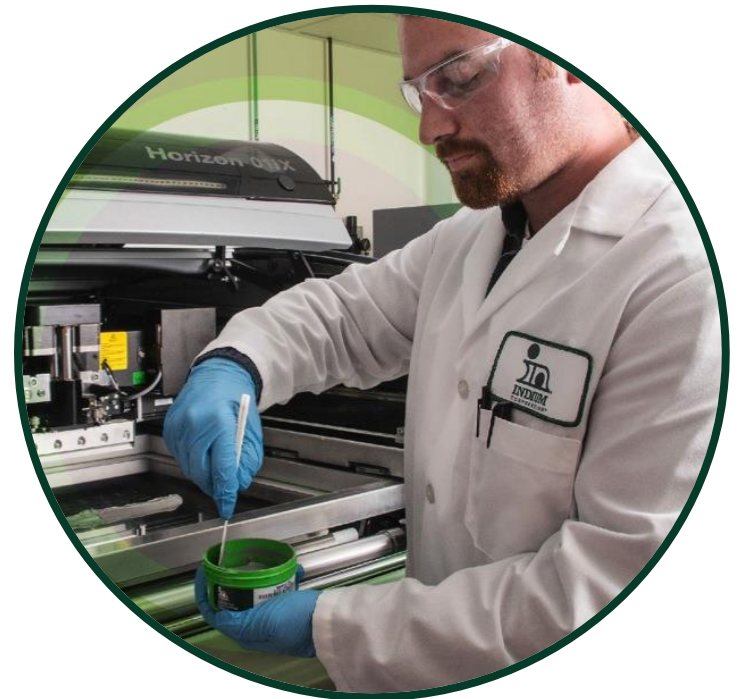
Innovative Research Labs

- Advanced Materials and Process Development Labs
- Thermal Lab
- Research and Development Labs
- Tech Hubs



Advanced Electronics Assembly Materials

- Solder pastes
- Solder preforms
- Metal thermal interface materials (mTIMs)
- Wave solder fluxes
- PoP fluxes and pastes
- Flux-cored wires
- Tacky fluxes
- Bar solder
- Underfill polymers
- And more



Cutting-Edge Semiconductor and Advanced Assembly Materials

Solder Pastes

- Wafer- and substrate-bumping solder pastes
- System-in-package solder pastes
- Dispensable solder pastes for MEMS
- High-temperature die-attach solder pastes, including Pb-free



Cutting-Edge

Semiconductor and Advanced Assembly Materials

Fluxes

- Wafer-bumping (bump fusion)
- Standard flip-chip and copper-pillar flip-chip
- WLCSP fluxes for ball mounting on wafers
- Ball-attach fluxes

Wire

- Gold-tin wire

Cutting-Edge Semiconductor and Advanced Assembly Materials

Solder Spheres

- 150 μ m to 760 μ m diameter
- Wide variety of alloys and tolerances
- Tape & reel packaging



Precision

Engineered Solder Materials

We provide solutions for:

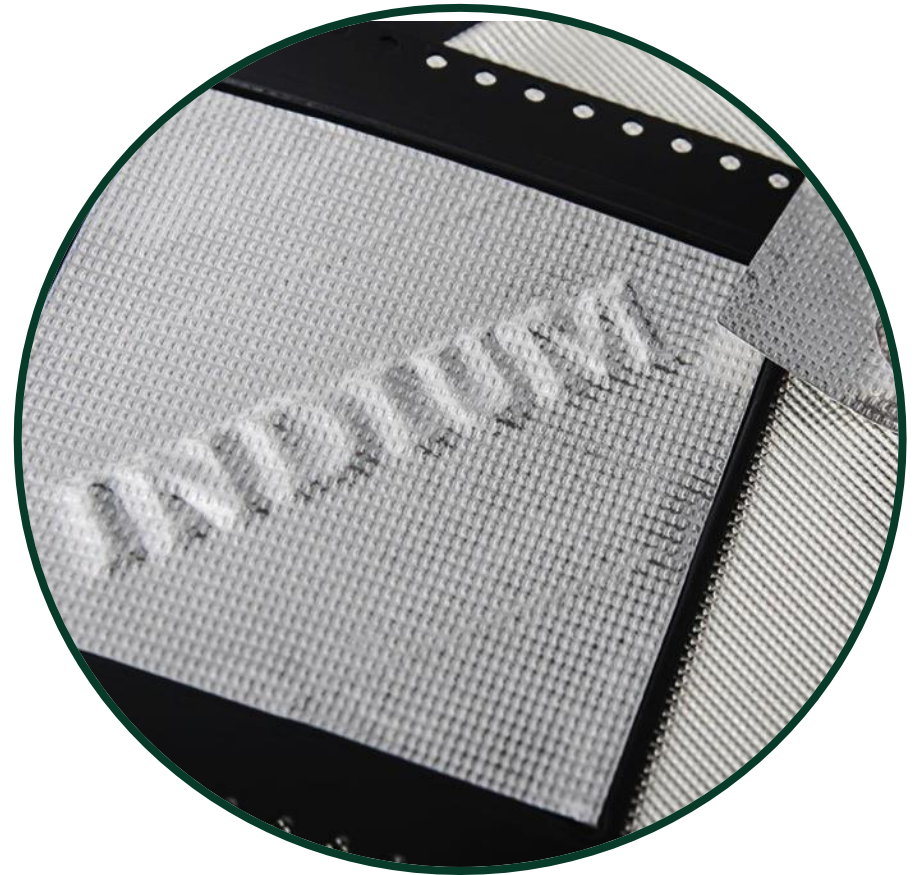
- Bonding, soldering, and brazing
- Thermal management
- Advanced materials requirements
- Mechanical requirements (e.g., CTE mismatch)
- Assembly automation packaging



Premier

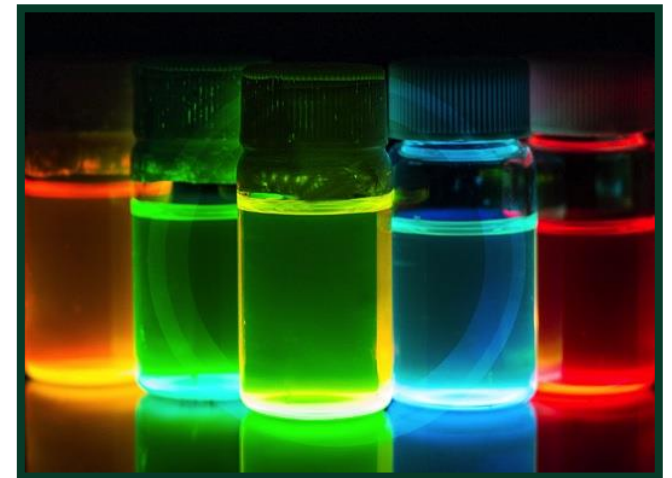
Thermal Interface Materials

- Thermally-conductive solder preforms
- Heat-Spring®
- Liquid metal alloys
- InFORMS®
- NanoFoil®



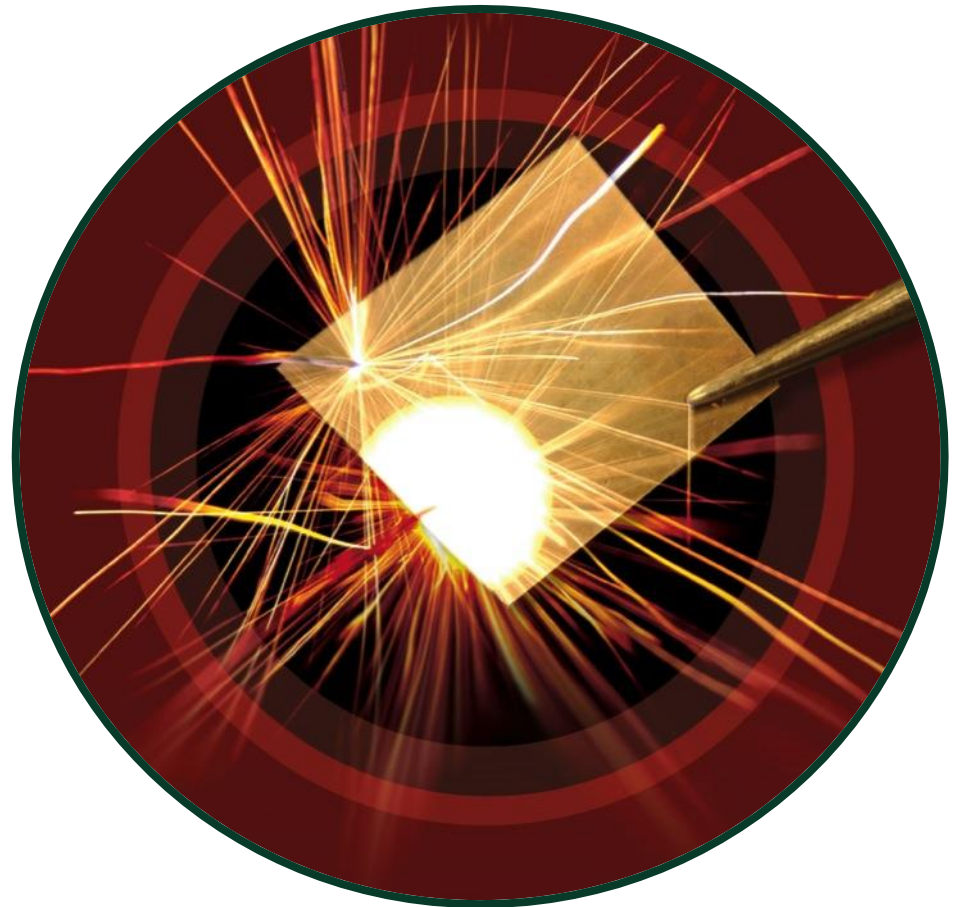
Leading Metals and Compounds

- Commercial-grade and ultra-high-purity indium metal
- A full range of indium compounds
- Germanium metal and compounds
- Gallium metal and compounds
- Tin metal and alloys
- Reclaim services



Progressive Nanotechnology

- NanoFoil®
- NanoBond®
- Target bonding
- Component mounting
- Energetics



Thank you.