

## PRODUCT DATA SHEET

# Solder Research Kits

### Solder Research Kits

At Indium Corporation, we have created a strong research and development team that has made us one of the top solder manufacturers in the world. We understand the challenges of developing viable products for today's marketplace.

One of the key hurdles in product development is being able to test a variety of options at a reasonable cost. With our Solder Research Kits, you can select various assembly solders to experiment with, and then choose the one that works best in your application.

Solder selection depends on a variety of requirements, including:

- Maximum soldering temperature
- Maximum and minimum operating temperature
- Base metal compatibility
- Tensile strength
- Corrosion resistance
- Electrical or thermal conductivity
- CTE mismatch
- Environmental concerns (i.e., Pb content)

### Safety Considerations

When you are using fluxes and solders, you should be careful to avoid unsafe conditions. Always make sure your solder equipment is in good working order and that your area is well ventilated. To ensure safe working conditions, please refer to the SDS document within the product shipment, or contact our local team to receive a copy.

### Reflow Temperature

When soldering, you will need to heat the solder to a temperature 20–40°C above the liquidus temperature of the alloy.

### Material Cleanliness

To create a strong solder joint, the surfaces being joined need to be clean and free of oxides. Selecting the proper flux is essential in this process. The choice is based on the metallization of the surfaces being soldered, the liquidus temperature of the solder, and the application. All of the kits come with appropriate flux options for the alloys.



From One Engineer To Another®



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### Available Solder Research Kits

#### Wire Selector Kit

- Select either 2, 5, or 10 of our most popular alloys
- 3 feet of each selected alloy in 0.030" diameter solid wire
- Choose up to 3 of the available fluxes

#### Ribbon Selector Kit

- Choose either 3, 6, or 12 of our most popular alloys
- 3 feet of each selected alloy in 1.00" x 0.002" ribbon
- Choose up to 3 of the available fluxes

#### Paste Selector Kit

- Choose 2, 3, or 5 of our most popular indium- and bismuth-containing alloys
- Type 3 size powder
- No-clean flux
- Syringe or jar packed

#### Low-Temperature Pb-Free Wire Kit

- 5 solid wires containing indium or bismuth
- 3 feet of 0.030" solid wire
- 2 compatible TACFluxes

#### Low-Temperature Pb-Free Paste Kit

- 2 indium- or bismuth-containing alloys
- No-clean flux
- Syringe packed

#### Nitinol Solder Research Kit

- 2 solid wires of Indalloy®121
- 3 feet of 0.030" wire
- Flux #2

#### Soldering to Gold Research Kit

- Choice of 3 indium-containing alloys
- 3 feet of 0.030" solid wires
- TACFlux® 007 and TACFlux® 012

### Other Kits

#### Indium Plating Kit

- 1 liter indium sulfamate plating bath
- 2 indium anodes (1.00" x 0.0625" x 12")

#### Heat-Spring® Thermal Interface Kits

- HSD patterned Heat-Spring®
- Choice of sizes at 0.004" thick
- Pure indium or 52In/48Sn
- HSHP pattern with Sn+ is also available



See all of the options online at <https://buy.solder.com/>

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All of Indium Corporation's solder paste and preform manufacturing facilities are IATF 16949:2016 certified.  
Indium Corporation is an ISO 9001:2015 registered company.

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