

# Preferred Product Guide for PCB Assembly



## Available Products

- Solder pastes
- Solder wire
- Solder fluxes
- Solder preforms
- Solder foils and ribbon
- Thermal interface materials
- Solder bar
- Solder spheres
- Solder alloys

## Solder Paste

Indium Corporation is the leading innovator in solder pastes for electronics assembly. Solder pastes are available with a wide variety of flux vehicles to suit various process needs, such as water-wash, no-clean, RMA, lead-free, halogen-free, printing, jetting, and microdispensing. Solder paste users are faced with many challenges and, as a result, need innovative technology solutions.

### Solder Paste Preferred Products

Paste Flux Vehicle	Type	Alloy	Value Proposition
<b>NC-SM092H*</b>	No-clean, halogen-free	Sn63/Pb37	Best all-around halogen-free, Sn/Pb, no-clean
<b>NC-SM092J</b>	No-clean, halogen-free	Sn63/Pb37	Soft flux residue ideal for ICT
<b>Indium RMA-155*</b>	RMA, halogen-free	Sn63/Pb37	Low-voiding RMA
<b>Indium8.9ES*</b>	No-clean	Sn63/Pb37	Outstanding wetting
<b>Indium6.6HF*</b>	Water-wash, halogen-free	Sn63/Pb37	Great wetting & cleanability
<b>Indium6.3</b>	Water-wash, halogen-free	Sn63/Pb37	Outstanding wetting
<b>Indium6.4R</b>	Water-wash	Sn63/Pb37	Lowest Voiding
<b>Indium8.9HF*</b>	No-clean, halogen-free	SAC305	Best all-around halogen-free, Pb-free, no-clean
<b>Indium8.9HFA</b>	No-clean, halogen-free	SAC305	High-speed printing
<b>Indium8.9HF-1</b>	No-clean, halogen-free	SAC305	Low-voiding & soft flux residue ideal for ICT
<b>Indium RMA-155 *</b>	RMA, halogen-free	SAC305	Low-voiding RMA
<b>Indium10.1*</b>	No-clean	SAC305	Best all-around halogen-containing, Pb-free, no-clean
<b>Indium8.9</b>	No-clean	SAC305	Good HIP performance
<b>Indium8.9E</b>	No-clean	SAC305	Outstanding wetting & coalescence
<b>Indium6.6HF*</b>	Water-wash, halogen-free	SAC305	Great wetting & cleanability
<b>Indium3.2HF</b>	Water-wash, halogen-free	SAC305	Great slump & wetting performance
<b>Indium6.4R</b>	Water-wash	SAC305	Lowest voiding water-wash
<b>Indium3.2</b>	Water-wash	SAC305	Great slump & wetting performance

\*Favored products

Learn more: [www.indium.com/solders](http://www.indium.com/solders) Contact our engineers: [askus@indium.com](mailto:askus@indium.com)

**From One Engineer To Another®**

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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## Solder Wire

Indium Corporation supplies a wide range of solid and flux-cored wire. These materials are manufactured to provide high-quality products that are precisely wound and void-free with tight dimensional tolerances.

Flux-Cored Wire Preferred Products			
Flux	Type	Alloy	Value Proposition
Core 230-RC	No-clean, halogen-free	Pb-free & Sn/Pb	Low spatter & fast wetting
CW-807	No-clean, halogen-free	Pb-free & Sn/Pb	Clear residue
CW-301	Water-wash	Pb-free & Sn/Pb	Great wetting & cleanability
CW-219	RA flux	Pb-free & Sn/Pb	Fast wetting

Indium Corporation can manufacture diameters between 0.006" (alloy dependent) and 0.125". Preferred distributor diameters include 0.015", 0.020", 0.032", 0.062", and 0.125".

Most Common Bar & Wire Solder Alloys		
Alloy	Solidus (°C)	Liquidus (°C)
Sn995	228	228
Indalloy®291	227	227
SAC387	217	220
SAC305	217	220
Sn60/Pb40	191	183
Sn63/Pb37	183	183
Sn62/Pb36/Ag2	179	179

## Solder Fluxes

### Wave Flux

Indium Corporation offers a full line of competitive, state-of-the-art wave solder fluxes for electronics assembly and was the first company to introduce halogen-free, Pb-free wave fluxes that perform as well as more established halogen-containing tin-lead wave fluxes.

Wave Flux Preferred Products				
Flux	Type	VOC	Alloy Compatibility	Value Proposition
WF-9940	Alcohol-based, rosin-containing, halogen-free, no-clean	Yes	Pb-free & Sn/Pb	High activity, low residue, high thermal stability
WF-9942	Alcohol-based, rosin-free, halogen-free, no-clean	Yes	Pb-free & Sn/Pb	High activity, very low residue
WF-9948	Alcohol-based, rosin-containing, no-clean for selective soldering	Yes	Pb-free & Sn/Pb	High activity with enhanced reliability
WF-7742	Water-based, no-clean, VOC-Free	Free	Pb-free & Sn/Pb	High activity, low residue, VOC-free

### Rework Flux

Indium Corporation's rework materials complement the company's paste, wire, and wave flux, and allow for easier rework processes.

TACFlux® Preferred Products			
Flux	Type	Alloy Compatibility	Value Proposition
TACFlux® 020B-RC*	No-clean, halogen-free	Pb-free & Sn/Pb	Passes SIR unheated
TACFlux® 089HF*	No-clean, halogen-free	Pb-free & Sn/Pb	Restricted flux residue spread
TACFlux® 101*	No-clean	Pb-free	Outstanding wetting on difficult-to-solder metallizations
TACFlux® 066HF*	Water-wash, halogen-free	Pb-free & Sn/Pb	Great wetting & cleanability

\*Favored products

Flux Pens Preferred Products			
Flux	Type	Alloy	Value Proposition
FP-500	No-clean, halogen-free	Pb-free & Sn/Pb	Passes SIR unheated
NC-771	No-clean, halogen-free	Pb-free & Sn/Pb	Passes SIR unheated
FP-300	Water-wash, halogen-free	Pb-free & Sn/Pb	Great wetting & cleanability

Learn more: [www.indium.com/solders](http://www.indium.com/solders) Contact our engineers: [askus@indium.com](mailto:askus@indium.com)

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