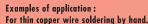
# Non-Cu Leaching Products / Post-flux

Minimizes Cu leaching problem with three-metals alloy for various applications. Pb-free compatible liquid flux is also available.

### **Non-Cu Leaching Product**

A core solder which is available for various products, such as SR-34 super and others.





# LFM-59

Using at higher soldering temperature than 400 degrees minimizes Cu leaching phenomenon during soldering.

Examples of application: For dip soldering, such as coil wire.



Soldering with extremely fine wire thinner than 50µmø. Workable at high soldering temperature over 400°C

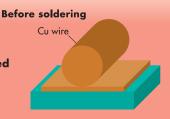
Examples of application: For dip soldering with extremely fine wire.



# What is [Cu leaching]?

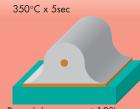
In the case of soldering, parent material's Cu content dissolves into liquid solders making. Cu wire thinner. This problem is critical especially for Pb-free soldering. Corrosion amount varies, depending on solder components, soldering temperature, and time.

Cu leaching makes thinner Cu wire soldered



Soldering

Remaining amount 69%



Remaining amount 18%

## Difference in remaining amount between other alloys and Cu. (comparison)

[Condition] Dip-solder Cu film wire of 150µm with other alloys for two seconds. Take cross-sectional photos to measure remaining amount of Cu wire. (\*Before dip, apply flux.)

Cu wire before soldering







Sn-0.7Cu









100%

33.9%

27.3%

45.1%

78.5%

83.4%

Alloy component	Sn-37Pb	Sn-0.7Cu	Sn-3.0Ag-0.5Cu	Sn-3.5Ag-0.7Cu	LFM-41	LFM-59	LFM-62
350℃	63.6	52.2	56	46.6	66.5		
<b>400</b> ℃	47.1	33.9	27.3	24.0	45.1	78.5	83.4

<sup>\*</sup>Because LFM-59 and LFM-62 have higher melting point, evaluation was done only at 400°C. (Unit:%)

Non-Cu leaching product specification

Product name	Alloy component	Melting point temperature	Applicable product			
Froduct flame	Alloy component	Mening point temperature	Core solders	Wire solders (only for 1.6ø and 2.0ø)	Bar solders	
LFM-41	Sn-0.3Ag-2.0Cu	217-270℃	0	0	0	
LFM-59	Sn-3.0Cu	227-312°C	×	0	0	
LFM-62	Sn-3.0Cu-0.5Ni	228-394°C	×	0	0	

\*LFM-41, a core solder, is available in various types such as SR-34 Super,SR34, KR-19, KR-19SH RMA, HR-19, and GUMMIX-19.

\*LFM-59 and LFM-62 contain anti-oxidant. As these fluxes can minimize oxidized residue of solder bus dross during high temperature dip soldering, the consumed amount of flux is reasonably decreased.

\*When the ordered product is out of stock, please contact our sales representative for details.

### Post-flux

# RC-281PF Flux

Highly reliable and desirable countermeasure against bridges, icicles, and insufficient soldering. Examples of application: Print wiring assembly and special metal soldering.

#### Post-flux product specification

Product name	Solid content	Relative density	Color tone	Chlorine content
RC-281PF flux	12%	0.815	Light ye <b>ll</b> ow	0

\* Please contact our sales representative for details.

