

Non-Cu Leaching Products / Post-flux

Minimizes Cu leaching problem with three types of metal alloy for various applications. Lead-free compatible liquid flux is also available.

Non-Cu Leaching Product

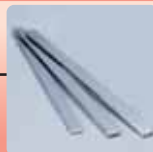
LFM-41



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

Examples of application :
For thin copper wire soldering by hand.

LFM-59



Soldering at temperatures of 400°C or more minimizes Cu leaching phenomenon during soldering.

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

LFM-62

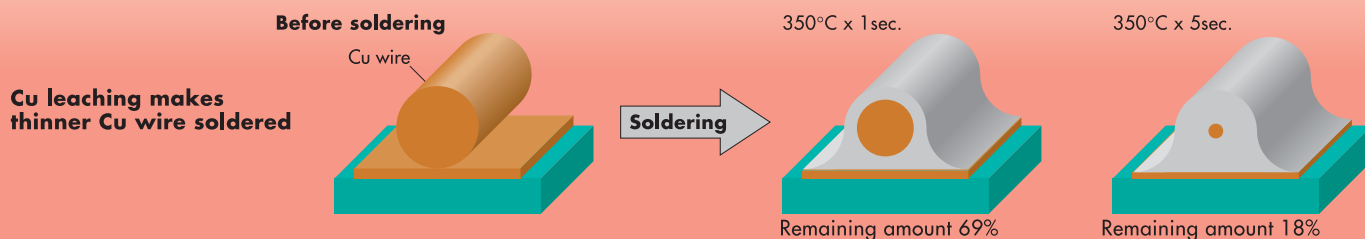


Soldering with extremely fine wire thinner than 50µm. Workable at high soldering temperature over 400°C.

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

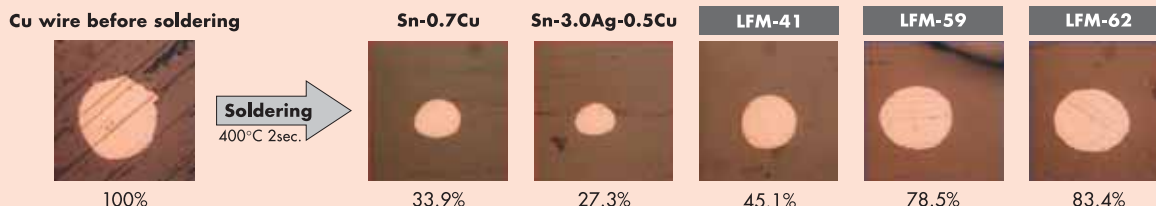
What is [Cu leaching]?

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



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.)



| Alloy component | Sn-37Pb | Sn-0.7Cu | Sn-3.0Ag-0.5Cu | Sn-3.5Ag-0.7Cu | LFM-41 | LFM-59 | LFM-62 |
|-----------------|---------|----------|----------------|----------------|--------|--------|--------|
| 350°C | 63.6 | 52.2 | 56 | 46.6 | 66.5 | -- | -- |
| 400°C | 47.1 | 33.9 | 27.3 | 24.0 | 45.1 | 78.5 | 83.4 |

*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 composition | Melting point temperature | Applicable product | | |
|--------------|-------------------|---------------------------|--------------------|---------------------------------------|-------------|
| | | | Core solders | Wire solders (only for 1.60 and 2.00) | Bar solders |
| LFM-41 | Sn-0.3Ag-2.0Cu | 217-270°C | ○ | ○ | ○ |
| LFM-59 | Sn-3.0Cu | 227-312°C | × | ○ | ○ |
| LFM-62 | Sn-3.0Cu-0.5Ni | 228-394°C | × | ○ | ○ |

*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 yellow | 0 |

* Please contact our sales representative for details.

Technology for the future

almit
NIHON ALMIT CO.,LTD.

HEAD OFFICE :
ALMIT BLDG., 2-14-2 YAYOICHO, NAKANO-KU, TOKYO, 164-8666 JAPAN
Phone:+81-3-3379-2277 Fax:+81-3-3374-2593 E-mail : tokyo@almit.co.jp