

Core Solder (Superb Workability)

Combines wettability and controllability to achieve excellent workability

SR-55 LFM-48

Reliability of JIS-A level is achieved. Initial wettability is good from low temperature range. Significantly improves working speed. Spreads well on parts made of materials that are hard to wet such as nickel and oxidized copper. Also provides excellent controllability. Detachability of the iron tip is improved, contributing to the higher workability.



[Examples of application] ●Sn-Ag-Cu alloy ●Sn-Cu alloy/General electronics devices, through-hole substrates, robot soldering, etc.

Comparing initial wettability and spreadability

Meets JIS AA standard for core solders and provides good initial wettability at low temperature range. Guarantees stable and reliable soldering performance.

■High temperature (350°C)

Competitor's product		0 sec.		After 1.67 sec.		After 2.33 sec.		After 3 sec.	Wetting starts at: After 1.30 seconds Wetting time: 0.69 seconds
SR-55 LFM-48		0 sec.		After 1.17 sec.		After 1.63 sec.		After 2.17 sec.	Wetting starts at: After 1.17 seconds Wetting time: 0.63 seconds

■ Initial wettability (350°C)

	Competitor's product	SR-55 LFM-48
Wetting start time	After 1.30 sec.	After 1.17 sec.
Wetting time	0.69 sec.	0.63 sec.

■ Spreadability (350°C)

	Competitor's product	SR-55 LFM-48
Oxidized copper plate	84.1%	85.5%
Nickel plate	76.3%	78.8%

■ Spreadability on various poor wetting metals

	Competitor's product	SR-55
Brass plate [%]	80.9	84.0
Phosphor bronze plate [%]	81.5	84.1
Nickel plate [%]	76.6	78.9

[Purpose] Evaluation of wettability on alloys that are difficult to wet.

[Evaluated items]

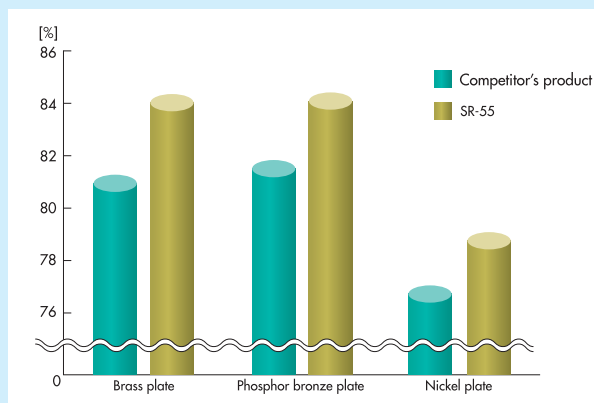
1. Evaluated metal plates: Copper plates, phosphor bronze plates, brass plates, nickel plates (with and without oxidation).

2. Evaluated flux: SR-55

3. Evaluation method: Solder spreading method using core solder swirl test pieces n=5 (320°C 20 seconds)

■ Comparison of workability with automatic soldering robot (connector parts 20p)

Product name	Amount of solder	Total	Soldering time
Current product	1 g	17.3 yen	48.0 sec.
SR-55	0.9 g	14.5 yen	39.6 sec.



SR-55 may produce 40,000 units per month, while the current product yields 33,000 units per month. Production efficiency improves by 33%. Further, the production efficiency becomes 1.5 times higher, because the consumption of the iron tip is reduced and time consumption for replacement of iron tip is also reduced.

Product name component for Core Solders

SR-55 LFM-48 3.5% 1.0φ
Flux + Alloy + Flux Content + Wire Diameter

Core Solders products specification

Flux	Alloy composition	Flux Content	Melting Temperature	Wire Diameter
SR-55	LFM-48 (Sn-3.0Ag-0.5Cu) LFM-22 (Sn-0.7Cu)	3.5%	217-220°C 227°C	0.5, 0.65, 0.8, 1.0, 1.2, 1.6

※LFM-48 holds the sublicenses for JP PAT No. 3027441 and US PAT No. 5527628

※Ask Almit sales representative for availability of the type and wire diameter in detail.