



MILATERA

Low Temperature Soldering for Earth

Low-Temperature Soldering Solutions [MILATERA]

SMIC
Senju Metal Industry Co., Ltd.

To a future leading to $\Delta t 80^{\circ}\text{C}$

Soldering requirements have changed with the times, and SMIC's low-temperature soldering solution "MILATERA" is the answer.

We provide "MILATERA" to the customers in a three-part system which includes materials, equipment, and our soldering method.

Solders with a melting point about 80°C lower than conventional solders allows for low-temperature mounting.

This new carbon-neutral option reduces significant burdens, costs, and CO_2 emissions throughout the supply chain.

SMIC is aiming for a future where manufacturing is done while considering both people and the environment.

Through our technology and passion, we will pave the way for various possibilities as partners in ushering in a bright future nurtured over more than 80 years.

Reducing temperature can reduce other factors and lead to positive outcomes.

That's why the reduction by SMIC's "MILATERA" will lead to a positive future.

The warmheartedness of our customers and partners who support this initiative will help to lower the earth's temperature.

We want to deliver next-generation mounting technologies that will lead to a brighter future for both companies and society.

Solution
01

Low-temperature Wave Soldering Method

Established as the world's first soldering method for effective CO₂ reduction in the circuit board mounting process (SCOPE2) in 2022.

Our newly developed wave soldering equipment and post flux helped to establish the world's first mass production process utilizing the low-temperature wave soldering method.

We were also the first in the world to commercialize the usage of flux cored solders for repair. This method was used in the manufacturing of rice cookers by the Panasonic Corporation.



Soldering Equipment
Development

Post Flux
Development

Flux Cored Solder
Development

Solution
02

Low-Temperature Reflow Soldering Method

Widespread usage for components and circuit boards that are heat-sensitive for effective CO₂ reduction in the circuit board mounting process (SCOPE2)

We have developed solder alloys with excellent thermal fatigue and drop resistance. We have a diverse product lineup for paste flux, including products(types) like halogen-free and thermosetting resin.

This method is used in many companies such as Lenovo Corporation for their laptop, PCs, and Panasonic Corporation for their camera modules, washing machines, and other products.



Solder Alloy
Development

Paste Flux
Development

Soldering Equipment
Development

Solution
03

Low-Temperature Soldering Materials

CO₂ reduction even in SCOPE3 from mineral exploration to refining as observed in the Life Cycle Assessment

We now include sustainability in the Life Cycle Assessment (LCA).
From the customer's perspective, low-temperature soldering can be expected to reduce CO₂ emissions even in the solder material process from mineral exploration to metal refining that falls under SCOPE3.
Although tin-bismuth solders can be hard and brittle, we offer products in various forms.

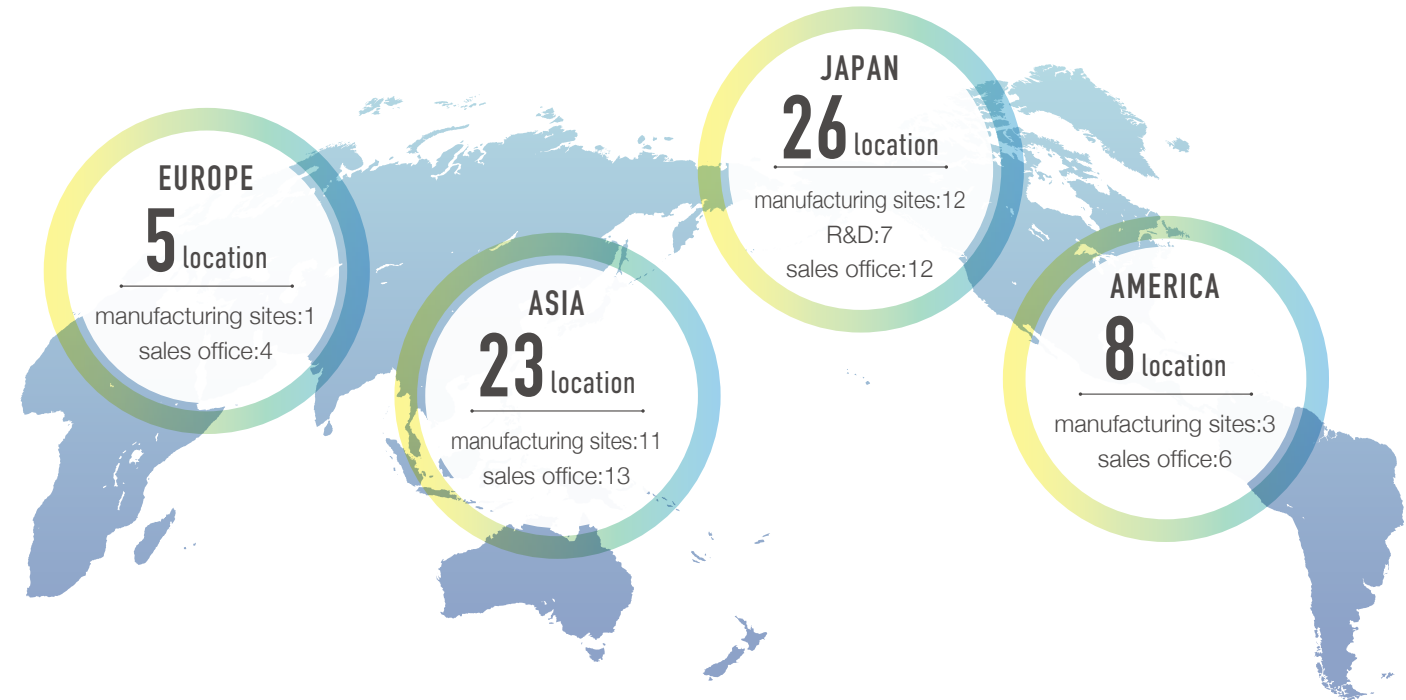


We Deliver Consistent Quality Throughout the World

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