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NEWS RELEASE

Mitsui Kinzoku Completes Technological Development of MicroThin™ for High-temperature Applications

— Applicable to High-temperature Process PCBs as Well —

Mitsui Kinzoku Company, Limited (President: Takeshi Nou; "Mitsui Kinzoku") announces that the technological development of MicroThin™, which had been previously announced in the "Mitsui Kinzoku Rolls Out MicroThin™ for Use as Flexible PCBs" news release dated November 11,2025, has been completed. MicroThin™ is the thinnest copper foil with a carrier that permits peeling even in high-temperature processes.

MicroThin™, an extremely thin electrodeposited copper foil with a carrier, is a product of Mitsui Kinzoku combining a copper foil thickness ranging from 1.5 μm to 5 μm suitable for forming fine circuits with multiple types of fine-roughening treatment. It has been traditionally mainly used for semiconductor package substrates and motherboards for smartphones (HDI printed circuit boards). Recently, there has been a new application for MicroThin™: flexible PCBs.

Newly developed as the thinnest copper foil with a carrier for high-temperature applications, MicroThin™ can be applied even to PCBs with excellent dielectric characteristics, such as MPI*1, LCP*2, and PTFE*3 PCBs that require high-temperature processes, having a high-temperature-resistant peeling layer that can be stably peeled even at 350 °C or more. MicroThin™ is expected to be introduced as a material that realizes fine circuit formation, thinning, and increased reliability even for PCBs that require high-level electrical characteristics, such as those used in next-generation mobile devices.

Mitsui Kinzoku will contribute to the realization of a sustainable society by implementing its vision for 2030, "Building new businesses —and the future— with our material intelligence," based on its purpose, "We promote the well-being of the world through a spirit of exploration and diverse technologies."

*1 MPI: Modified polyimide
*2 LCP: Liquid crystal polymer
*3 PTFE: Polytetrafluoroethylene

Note: In typical situations, the dielectric constant of MPI > LCP > PTFE. A lower dielectric constant results in a lower transmission loss.

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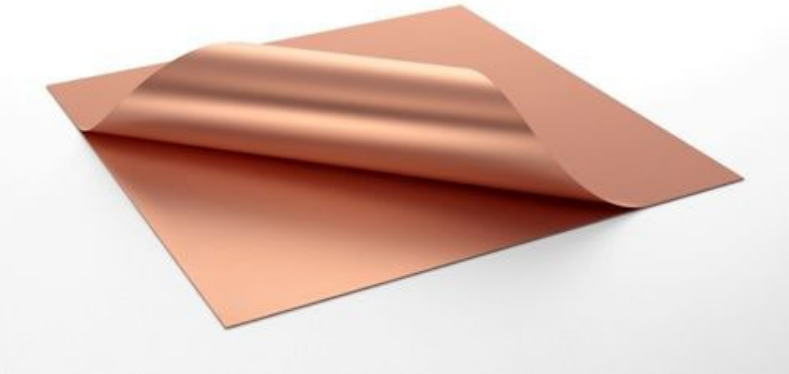
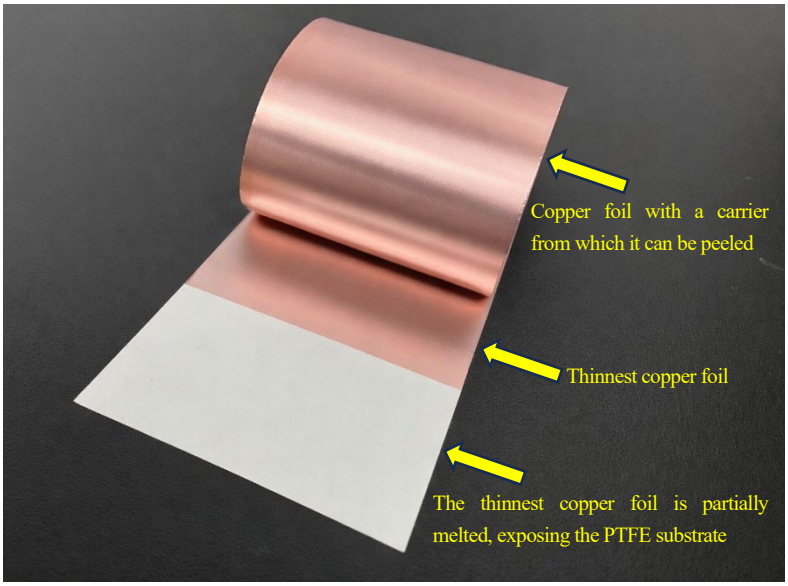
Picture of MicroThin™



Top: Copper carrier foil (thickness: 18μm or 12μm)
Bottom: Extremely-thin copper foil (thickness: 1.5μm to 5μm)

Newly developed MicroThin™ for high-temperature applications
(with a PTFE substrate pressed and laminated at high temperature)



Top: Copper carrier foil (thickness: 18μm or 12μm)
Middle: Thinnest copper foil (thickness: 1.5 μm to 5 μm)
Lower: PTFE substrate (white part)