

September 17, 2013

JX Nippon Mining & Metals Corporation

## **Starting the Manufacture and Sale of a High-Strength Copper Alloy Foil**

*Rolled titanium copper foil developed with world's highest strength of 1400 N/mm<sup>2</sup>*

JX Nippon Mining & Metals Corporation (head office: Otemachi 2-chome, Chiyoda-ku, Tokyo; president: Yoshimasa Adachi) has successfully developed a titanium copper foil having the world's highest tensile strength for a copper alloy foil\*<sup>1</sup> at 1400 N/mm<sup>2</sup>\*<sup>2</sup> (see the attached figure for reference), and has begun the manufacture and sale of this product in full scale.

Companies wanting to make their electronic devices thinner and smaller demand the development of ever thinner and higher strength copper alloys for use in electronic components. Combining our manufacturing technologies for rolled copper foil, for which we have the top share of the global market, and high-strength copper alloys, we developed a titanium copper foil that boasts both high strength and extremely high-accuracy plate thickness of 30 micrometers. We have also established the integrated processing at our Kurami Works for performing all the processes involved in manufacturing this titanium copper foil, from melting and casting to hot rolling, annealing, cold rolling, and slitting, enabling manufacturing with quick turnaround, and have also established the necessary quality assurance capability.

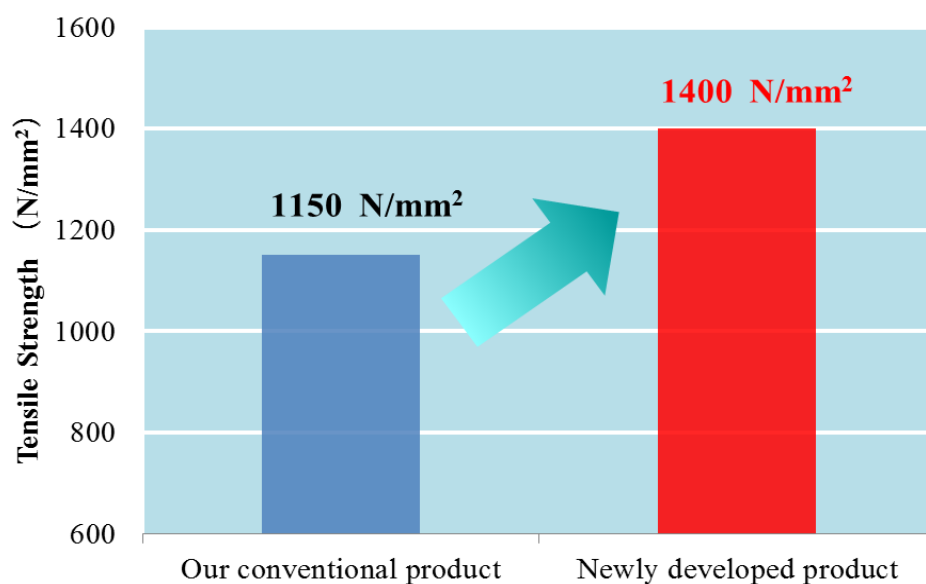
Today titanium copper foil is increasingly being adopted in and outside Japan as an auto-focus module in smartphones and feature phones. Development of additional uses is also expected because of the ability to perform even-finer processing not possible with conventional materials.

\*1 Our company categorizes as “foils” precision rolled materials with thickness less than 0.1 mm.

\*2 N/mm<sup>2</sup>: A unit indicating the strength of a material per unit area.

For reference

Strength of the newly developed titanium copper foil with 30 micrometer thickness



\*We can also supply foil with other thicknesses, such as 50 micrometers, on request.

Photo: Coils made of titanium copper foil

