



August 28, 2018

Press Release

## Development of “CeraMesh™” for firing electronic component

**Aiming to improve yield of calcination products and contribute to energy saving by lowering heat with 60% weight reduction**

Mitsui Mining & Smelting Co., Ltd. (President: Keiji Nishida; “Mitsui Kinzoku,” hereinafter) is pleased to announce that it has started mass production/shipment of CeraMesh™, a next-generation kiln tool for electronic component firing, such as MLCC\*1.

Mitsui Kinzoku’s Ceramics Division (Omuta City, Fukuoka Prefecture) has provided ceramic products that satisfy customer needs in areas such as lightness, thinness, toughness and complex shapes. They have been broadly adopted as kiln tools for electronic component firing.

Demand for electric components has recently been strong thanks to the growing use of electronic components, such as ADAS\*2 for automobiles, IoT and smartphones. As the leading manufacturer of kiln tools for electronic component firing, Mitsui Kinzoku is moving steadily ahead with increased production and new product development. Now it has developed CeraMesh™, a mesh ceramic plate for next-generation kiln tools. The mesh shape improves the ventilation of the gas generated from firing objects on the ceramic plate and circulation of atmospheric gas near firing objects. This feature enhances degreasing and temperature distribution, with yield growth anticipated in products. In addition, it reduces weight by 60% compared to conventional plates, lowering the heat required to burn kiln tool plates, helping to boost heat flow and energy saving.

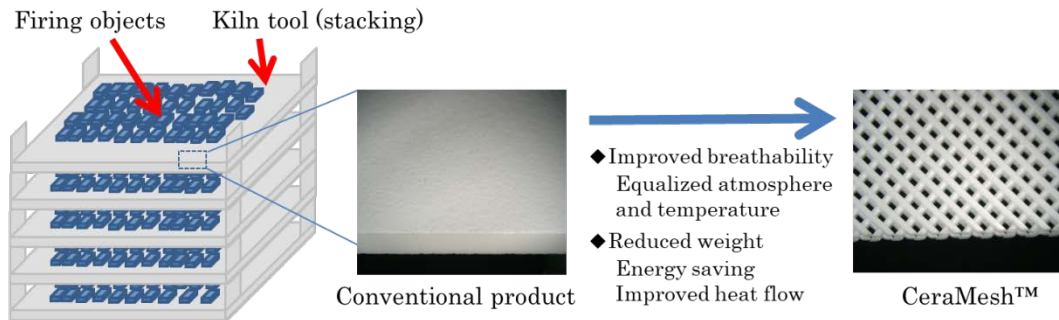
Low-volume production lines of CeraMesh™ have already started. Going forward, Mitsui Kinzoku plans to enhance its capacity in accordance with demand.

Under its slogan of Material Intelligence, Mitsui Kinzoku will be working to ensure stable quality and sufficient supply to customers, and will continue to refine its products to contribute to customers’ product yield ratio, productivity improvement and energy saving.

[Inquiries]

Investor Relations & Corporate Communications Department,  
Corporate Planning & Control Sector,  
Mitsui Mining & Smelting Co., Ltd.  
E-mail: [PR@mitsui-kinzoku.com](mailto:PR@mitsui-kinzoku.com)

(Reference)



■ Available in a variety of inorganic materials

Example:  $\text{Al}_2\text{O}_3$ ,  $\text{ZrO}_2$ , SiC,  $\text{Si}_3\text{N}_4$ , mullite, cordierite and others

■ Significantly reduced weight

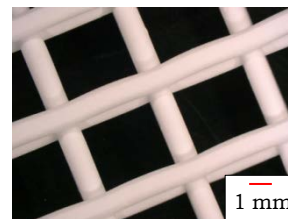
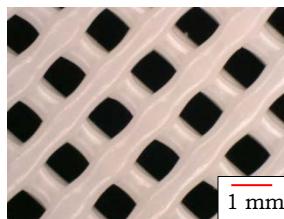
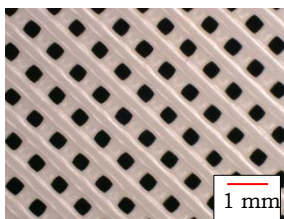
Example: In the case of alumina porcelain with a size of  $100 \times 2$  mm,  
60% reduced weight is possible.

Conventional product: 75 g  $\Rightarrow$  CeraMesh™ (1 mm-wire diameter): 30 g

■ Available in a broad range of sizes (fine or coarse) for mesh opening/wire diameter as well as shapes

Example: Supports 0.2 to 3.0 mm in mesh opening, 0.3 to 1.6 mm in wire diameter

A variety of shapes are available, up to 300 mm in width and length.



Supplement:

\*1 MLCC ... Abbreviation for Multi-Layer Ceramic Capacitor

\*2 ADAS ... Abbreviation for Advanced Driver Assistance System