

February 25, 2021

Nippon Electric Glass Co., Ltd.

## **The World's First Colorless and Transparent Zero-expansion Glass-ceramics** **Developed by Nippon Electric Glass**

Nippon Electric Glass Co., Ltd. (Head Office: Otsu, Shiga, Japan, President: Motoharu Matsumoto) has developed Cerapure™, the world's first colorless and transparent glass-ceramics with zero thermal expansion coefficient, and the company will start supplying samples. This epoch-making material overturns the previous fixed concept that it is extremely difficult to produce colorless and transparent zero-expansion glass-ceramics.

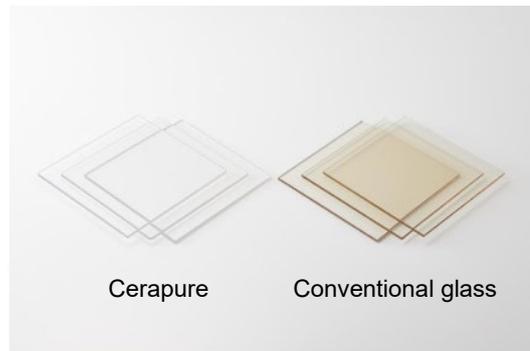
Since conventional zero-expansion glass-ceramics have unavoidable contradiction that essential component for crystallization causes coloring of glass, it had been considered almost impossible to produce colorless glass-ceramics, and this unsolved challenge had remained for over 50 years since the development of zero-expansion glass-ceramics.

Nippon Electric Glass has worked on this long-standing challenge to explore and expand new applications of zero-expansion glass-ceramics. Through reconsideration of chemical composition of glass, the company has succeeded in precipitating the desired crystals without using the color-causing component, which led to the development of this colorless and transparent zero-expansion glass-ceramics.

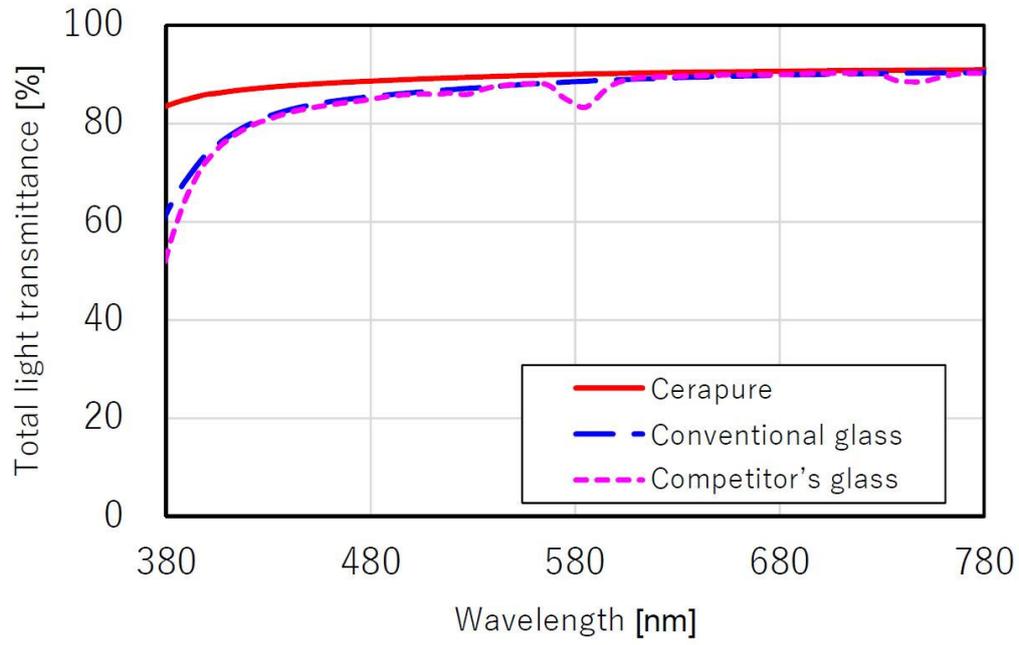
This new glass-ceramics have the new value of being colorless and transparent, while maintaining the excellent properties of conventional glass-ceramics, including zero expansion, high resistance to heat and thermal shock, and being free of harmful substances, such as As (arsenic). This added value enables white and other light-colored print on the top plates for cookers to be more vivid, which was never possible before. Nippon Electric Glass will seek more applications that make use of its transparency in a wide variety of fields and will strive to create a market for the material.

As an expert in special glass, Nippon Electric Glass will continue to develop and commercialize glass with unprecedented properties and functions, and bring it to the world.

<Product photos>



<Transmittance (Products 3 mm thick)>



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