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Nippon Electric Glass Co., Ltd.

Development of High-efficiency Deep UV-transmitting Glass

Nippon Electric Glass Co., Ltd. (Head Office: Otsu, Shiga, Japan; President: Motoharu Matsumoto) has developed and started to accept orders of new deep UV-transmitting glass which transmittance in deep ultraviolet (UV) region is 10%* higher than our conventional glass.

Deep UV light, with comparatively shorter wavelength in UV light, has antiseptic property and organic matter decomposition. Lamps and LEDs with the function of emitting deep UV light are used in medical sites and food factories. To protect these light sources, silica glass and deep UV-transmitting glass, which have a feature to transmit deep UV efficiently, are used.

Our conventional deep UV-transmitting glass, when compared with silica glass, has the following advantages: (1) can be processed in lower temperature; (2) its coefficient of thermal expansion is almost same as that of Aluminum Nitride. However, its transmittance in deep UV region was lower than that of silica glass.

Keeping the above mentioned advantages, we have developed new glass which has the same transmittance as silica glass in deep UV region by reformulation. This paved the way to improve the performance of various devices using deep UV light.

We will aggressively promote these advantages and expand sales in the relevant market of the devices using deep UV light.

*: Compared with our conventional glass in 200nm wavelength

<Features>

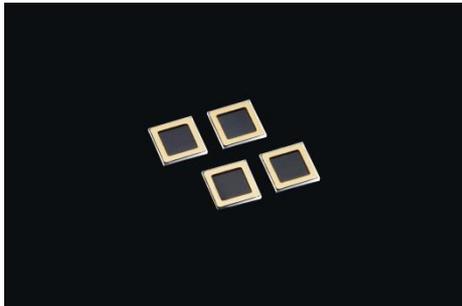
- Almost same transmittance as silica glass in ultraviolet region of 250nm wavelength or less. (Transmittance is 10% higher than conventional products in 200nm wavelength or less)
- As the softening point is 700°C, lower than silica glass by 1000°C, heat processing (sealing etc.) with low temperature is possible.
- The difference in coefficient of thermal expansion with Aluminum Nitride is one digit smaller than that of silica glass and Aluminum Nitride.

- Various thin film coatings, such as metallization, anti-reflection, are available.
- Various shapes such as sheets, tubes, lens and prism, are available.

<Standard shapes and sizes of the products>



Tube
Outer Diameter 4mm × Length 1500mm
Thickness 0.5mm



Sheet (The photo shows products with metallization)
3.5mm×3.5mm、 5.0mm×5.0mm
Thickness 0.2 mm~0.5mm



Lens

*Different sizes other than the above are also available.