

Ultra-thin Glass for Speaker Diaphragm Named "Sonarion"

Nippon Electric Glass Co., Ltd. (Headquarters: Otsu, Shiga, Japan; President: Akira Kishimoto; "NEG") is pleased to announce that it has named its ultra-thin glass developed for speaker diaphragms "Sonarion™."

With the Sonarion™ brand, NEG aims to enhance its presence in the high-end audio market, deliver new acoustic experiences through its proprietary glass technologies, and further expand market adoption.



Diaphragms using Sonarion™

■About the New Brand "Sonarion™"

Sonarion™ is an ultra-thin glass specifically developed for speaker diaphragms, the core component of acoustic devices.

- **Ultra-thin and lightweight:**

Sonarion™ achieves a thickness ranging from 25μm (0.025mm) to 200μm (0.2mm), placing it among the thinnest glass materials in the world while meeting the extreme requirements for diaphragm applications.

- **High responsiveness and strength:**

Through proprietary glass composition design, Sonarion™ combines lightweight characteristics with high mechanical strength, enabling it to withstand intense vibration

amplitudes and sound pressure.

■Origin of the Name

“Sonarion™” is a coined term combining “Sonar,” meaning sound, and “Orion,” the constellation that shines brightly in the winter night sky.

The name reflects the clear and transparent sound produced by this glass, evoking the brilliance of stars resonating in silence and symbolizing a deep and expansive soundscape.

※“Sonarion™” is a trademark pending application by Nippon Electric Glass Co., Ltd.

■Features of Diaphragms Using Sonarion™

NEG has developed innovative diaphragms using Sonarion™ in collaboration with GAIT (Glass Acoustic Innovations Co., Ltd.), a Taiwanese company with advanced 3D processing technology for ultra-thin glass. By applying three-dimensional forming and specialized chemical strengthening treatment, the material achieves ideal acoustic characteristics.

[Features]

- Compared to materials such as paper or metal, it offers faster sound attack and decay[※], delivering clearer, more precise sound with minimal distortion.
- The material inherently has high internal loss with low self-resonance, resulting in very little coloration.
- Lightweight and highly responsive, capable of accurately reproducing the subtle nuances of delicate sounds.
- The glass surface is strengthened with a special chemical treatment, enabling it to withstand intense vibrations from heavy bass.
- Resistant to environmental changes such as temperature and humidity, and less prone to aging over time.

※ "Sound attack" refers to the time or speed of response from when a sound begins to its peak. A fast attack time results in clear sound contours, allowing the attack of percussion and string instruments to be reproduced distinctly. Conversely, "sound decay" indicates how quickly the sound fades after it has finished sounding. A fast decay prevents unwanted lingering sound, allowing the next note to be heard clearly. This results in a tighter, overall sound with less distortion.

[Related Articles on Our Website]

- [Ultra-thin Glass Diaphragms, the Key to Next-Generation Quality Sound Speakers | Nippon Electric Glass \(NEG\)](#)
- [Que UTG—World-first Earphones Incorporating Ultra-thin Glass Diaphragms Launched | Nippon Electric Glass \(NEG\)](#)
- [NEG and GAIT's Ultra-thin Glass Diaphragm Won the "Technical Special Award" at the 41st HiVi Grand Prix \(NEG\)](#)

■ Exhibition Information

NEG will exhibit at “Touch Taiwan 2026,” to be held in Taiwan in April 2026.

At the booth, NEG will showcase Sonarion™ and offer listening demonstrations of speakers and earphones featuring Sonarion™ diaphragms.

- Exhibition: Touch Taiwan 2026
- Period: April 8 (Wed.) to April 10 (Fri.), 2026
- Venue: Taipei Nangang Exhibition Center, Hall1, 4F
- Booth: L514
- Website: <https://www.touchtaiwan.com/en/>

■ About GAIT (Glass Acoustic Innovations Co., Ltd.)

GAIT is the world's only glass processing company capable of precise 3D processing of Ultra-thin Glass, and the inventor of glass diaphragm technology. Founded in 2020, this startup is headquartered in Taipei, Taiwan.

In April 2024, we entered a strategic partnership with NEG to jointly advance the development, manufacturing, and market deployment of Ultra-thin Glass diaphragms for the audio industry.

[Company Profile]

Nippon Electric Glass Co., Ltd. is a world-class specialty glass manufacturer headquartered in Otsu City, Shiga Prefecture. Special glass that creates novel functionality is transformed into a variety of products, such as sheets, tubes, fibers, and powder, and is used in a wide range of fields, including semiconductors, displays, automobiles, electronic devices, medical care, and energy. The special glass developed using the technology and track record that we have honed over our 70-year history is highly regarded in a wide range of fields, from everyday life to cutting-edge industry.

Company name: Nippon Electric Glass Co., Ltd.

Representative: Akira Kishimoto, President

Head office location: 7-1, Seiran 2-chome, Otsu, Shiga 520-8639, Japan

Founded: December 1, 1949

Business details: Production and sale of special glass products; manufacture and sale of glassmaking machinery

URL: <https://www.neg.co.jp/en/>

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<Contact regarding products>

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