

AGC to Make Drastic Expansion to Supply System for EUVL Mask Blanks

Tokyo, July 27, 2020– AGC Inc. (AGC), a world-leading manufacturer of glass, chemicals and high-tech materials, has decided to drastically expand a supply system for EUV lithography photomask blanks ("EUVL mask blanks") at its group company, AGC Electronics Co., Ltd. (Headquarters: Koriyama, Fukushima Pref.; President: Hiromasa Sato). The construction including building expansion will start in coming October and operations are scheduled to start in 2022.



AGC Electronics new production facility (conceptual drawing)

With the full-scale dissemination of IoT, artificial intelligence (AI) and next-generation high-speed communication (5G), semiconductor chips need to have faster calculation speeds, larger data capacity, and more advanced integration. The circuit patterns of semiconductor chips must be further miniaturized to achieve these goals, yet currently available optical lithography technology¹ has limitations and EUV² lithography is drawing attention as a leading-edge miniaturization technology to replace optical lithography.

AGC began conducting R&D on photomask blanks to be used as a consumable part for semiconductor production using EUV lithography technology in 2003. By combining its core technologies (i.e. glass materials, glass processing, and coatings), it continued technological development of photomask blanks and began production of EUVL mask blanks in 2017. AGC has made necessary investments to meet market demand, and to respond to further expansion of the EUV lithography market, AGC has decided on this drastic expansion of the supply system for EUVL mask blanks.

As the world's only manufacturer of the photomask blanks that can handle every aspect from glass materials to coating, AGC will establish a mass production system to meet growing market demand, with the aim of achieving target sales of 40 billion JPY or more and a global market share of 50% in 2025.

Under its **AGC plus** management policy, the AGC Group has made a commitment to positioning electronics related business as one of its key strategic initiatives. AGC intends to continue making aggressive capital investment in EUVL mask blanks, which are expected to see significant growth in demand in the coming years, to contribute to further development of the semiconductor industry.

MEDIA INQUIRIES

Kazumi Tamaki, General Manager, Corporate Communications & Investor Relations Division
AGC Inc.

(Contact: Momoyo Nakanishi; Tel: +81-3-3218-5603; E-mail: info-pr@agc.com)

*Handling of personal information is governed by our privacy policy.

Notes

- 1: Optical Lithography Technology: The process of transferring LSI circuit patterns to silicon wafers, etc., using a KrF (krypton fluoride) or ArF (argon fluoride) light source. It is theoretically unrealistic to fabricate miniaturized patterns at what is commonly termed a "7nm" level.
- 2: EUV: Extreme ultraviolet radiation with a wavelength of 13.5nm.

- REFERENCE -

■ About AGC Electronics

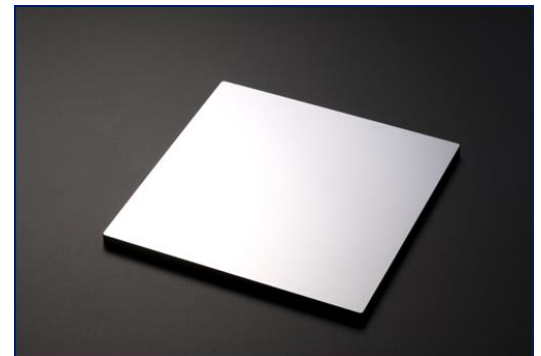
Official name	AGC Electronics Co., Ltd.
Capital	300 million yen
Representative	Hiromasa Sato
Head office location	Koriyama City, Fukushima Prefecture
Employees	Approximately 700 (as of the end of December 2019)
Primary business	Glass frit and paste for electronics, optoelectronics products for components such as optical pickups and synthetic silica glass for semiconductor manufacturing semiconductor-related materials business, optical device related business, EUV lithography photomask blanks, etc.

■ About EUVL Mask Blanks

EUVL mask blanks are a low-thermal expansion glass substrate with various kinds of optical coating films on its surface. An EUV photomask comprises a semiconductor chip circuitry pattern formed onto the surface of an EUVL mask blank, and this circuit is transferred onto a silicon wafer in order to create a semiconductor chip.

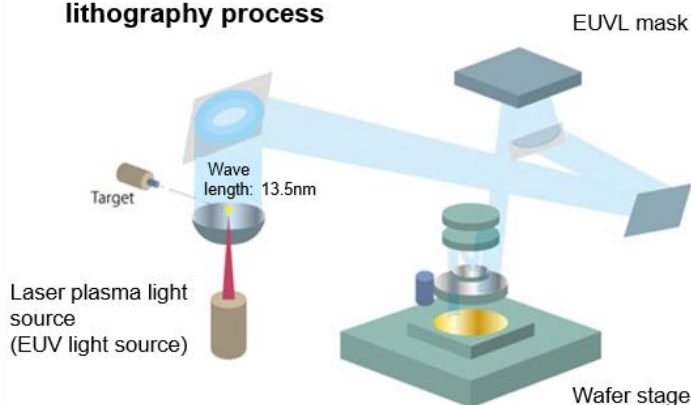
Due to the further miniaturization of circuits, EUVL mask blanks are increasingly expected to:

- Have as close to zero micro-defects as possible;
- Have almost perfect flatness



EUVL mask blanks

Outline view of the EUV lithography process



MEDIA INQUIRIES

Kazumi Tamaki, General Manager, Corporate Communications & Investor Relations Division
AGC Inc.

(Contact: Momoyo Nakanishi; Tel: +81-3-3218-5603; E-mail: info-pr@agc.com)

*Handling of personal information is governed by our privacy policy.