

## **Mitsui Chemicals Commences Commercial Production of EUV Pellicles** **Coping with continued semiconductor refining technology**

Mitsui Chemicals, Inc. (Tokyo: 4183; President & CEO: HASHIMOTO Osamu) today announced the commercial production launch of EUV pellicles. Following the conclusion of EUV pellicle license agreement with ASML (Veldhoven, the Netherlands; President & CEO: Peter Wennink), Mitsui Chemicals has established the production facilities for EUV pellicles at Iwakuni-Ohtake Works based upon ASML's design & technology, becoming the world's first pellicle manufacturer commencing commercial production.

With a view toward EUV pellicles and other ICT-related products serving customer needs for technological innovation, such as the continued refinement of semiconductors, Mitsui Chemicals aims here to make broad-ranging contributions to better life and society.

### ◆ EUV pellicles

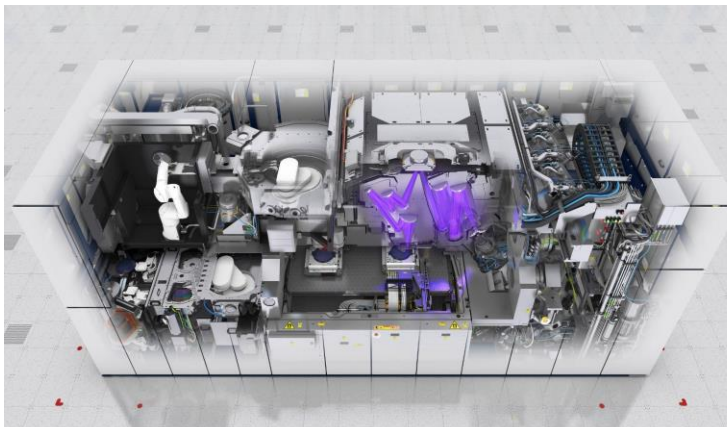
The recent trend of 5G telecommunications necessitates utilization of fast processors in smartphones. Chip used for those advanced processors must now have line width of 7 nanometers or less – driving a real increase in the uptake of EUV lithography technology, which offers an ultrashort wavelength. EUV pellicles prevents photomasks from dust contamination and hence, contributes to better productivity in such lithography processes.

### ◆ ASML

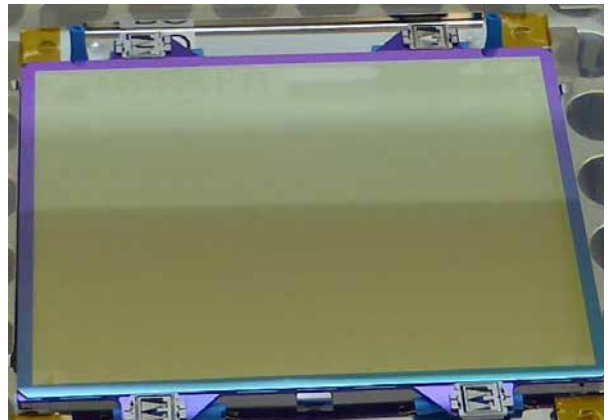
The world's largest supplier of lithography equipment for semiconductors, ASML is the only manufacturer to have successfully developed EUV lithography equipment and EUV pellicles.

### ◆ Mitsui Chemicals' strengths

Since first launching its own PELLICLE™ for the lithography process back in 1984, Mitsui Chemicals has been striving for ever-improved quality of pellicle to match the progress of semiconductor's circuit line width miniaturization. Mitsui Chemicals' work here has seen it build up a raft of production expertise relating to containment management and the like – which is now being put to use in the production of EUV pellicles. Going forward, Mitsui Chemicals will keep up with the advances in EUV lithography equipment by working with ASML to achieve improvements and innovations to its EUV pellicle technology.



EUV lithography equipment



EUV pellicles

## **Glossary**

### **\*1 Lithography**

A technology that utilizes light to enable detailed processing for the production of integrated circuits, liquid crystal displays and more. By applying a photoresist to a semiconductor wafer and then utilizing lithography equipment, companies are able to etch element and circuit patterns from the photomask onto the wafer.

### **\*2 Pellicle**

A dust cover for photomasks, helping to keep photomasks clean and improve semiconductor productivity. By using pellicles, it is possible to protect against production defects that would otherwise be caused by contamination.