News Release



January 17, 2020 **DIC** Corporation

DIC Develops Photomask that Prevents Electrostatic Discharge Damage

-Hopes to improve production yields for smartphones, tablets, and other electronic devices components-

Tokyo, Japan—DIC Corporation and its wholly owned subsidiary, Topic Co., Ltd, have jointly developed an anti-electrostatic discharge (ESD) chrome photomask that prevents ESD damage. Topic plans to begin marketing the new product to the electronics and semiconductor markets in Japan and Southeast Asia, in March 2020, forecasting sales of ¥200 million in the first year.





Anti-ESD Chrome Photomask

Electronic Circuit Pattern

Electronic component manufacturers use photomasks to transfer electronic circuit patterns to substrates for the integrated circuits in electronic devices, including smartphones and tablets. Photomasks are essential elements in the integrated circuit production process, however, currently available photomasks do not prevent ESD damage.

Electrostatic discharged during processing can cause differences between pattern features. ESD damage often occurs when the substrate is exposed, as well as during handling between processes or transport. As exposure—especially contact exposure or proximity exposure generates high voltage, ESD damage has been a major cause of lower New mask prevents ESD damage production yields to date.



The DIC Group's new high-spec anti-ESD chrome photomask employs a high-density, high-precision coating to inhibit ESD damage. The device will help electronic device manufacturers prevent damage and improve production yields. The device coating prevents foreign substances from adhering to the photomask surface and facilitates the easy removal of said foreign substances.

The DIC Group aims to remain a unique trusted company, delivering products that address key social imperatives. DIC offers products that help customers enhance productivity, including products in the rapidly changing digital arena, notably the global shift to 5G wireless cellular networks.

The full-scale commercial deployment of technology for 5G wireless cellular networks is expected to drive demand for 5G-compatible electronic devices as well as Internet of Things (IoT) devices, already gaining popularity worldwide. The DIC Group is in an excellent position to fill this expected demand.

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Topic Co., Ltd.

Topic is engaged in the manufacture and sale of precision photomasks, essential to the production of electronic components used in a variety of electronic devices. Since becoming a wholly owned subsidiary of DIC in 1995, Topic has leveraged DIC's basic coating technologies to develop coatings for photomasks that enhance durability and transparency. In addition to providing high-value-added photomasks, the company aims to promote the development and launch of high-performance new photomasks

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Establishment: August 1980

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