

New lineup of Photosensitive Materials for Mini/Micro LED displays

Tokyo, Japan – April 14, 2022 Sumitomo Bakelite Co., Ltd. (TOKYO: 4203 HQ: Shinagawa-ku, Tokyo, President and Representative Director: Kazuhiko Fujiwara) announced today that it has developed a new lineup of Sumiresin Excel® CRX series, a photosensitive material for mini/micro LED displays, and has begun sample work.

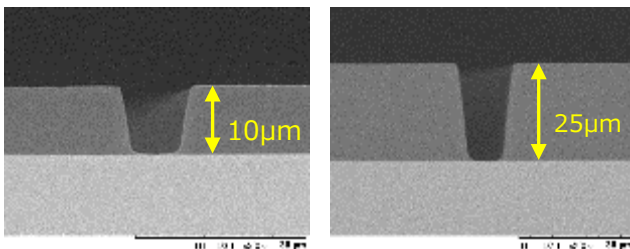
Development Background

In addition to the photosensitive semiconductor wafer-coating materials (Sumiresin Excel® CRC series), Sumitomo Bakelite Co., Ltd. has developed the CRX-4000 series for use in displays. In mini/micro LED displays, it is expected that photosensitive materials with good lithography performance and insulation reliability will be required for high-density packaging of LED chips. Furthermore, high transparency and high light resistance are also important in order to maintain the high brightness which is the feature of mini/micro LED displays. Therefore, we have developed the CRX-4000 series, a highly transparent and light-resistant photosensitive material, by newly designing a resin structure and combining it with our formulation technology.

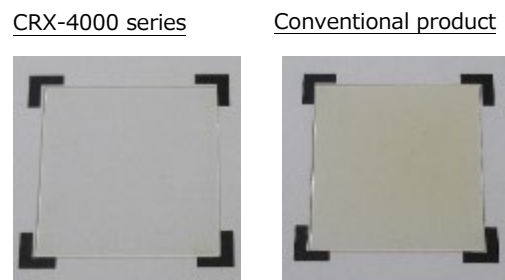
Features of CRX-4000 series

CRX-4000 series can maintain its high transparency after 500 hours of light exposure. Good light resistance without yellowing can meet the needs of materials around LED chips. With a wide range of thickness availability from 3 μm to 25 μm, it can be used for thin film applications as well as thick film applications. The development solvent is alkaline aqueous solution which is environmentally friendly.

◆ Cross sectional image of line pattern



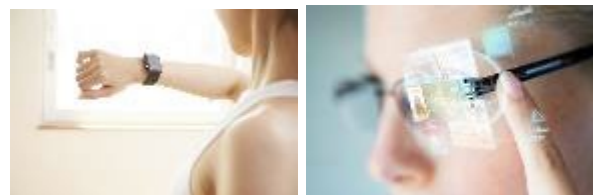
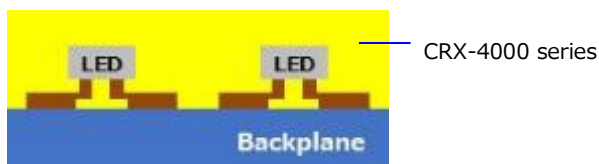
◆ Appearance after 500 hours of light exposure



(Sample: 10 μm thickness film on glass)

Application example

Cross sectional image of display



For inquiries on this information:

Sumitomo Bakelite Co., Ltd., Smart Community Marketing & Developing Division

E-mail : exh2-scm@ml.sumibe.co.jp