Sumitomo Chemical Establishes Joint Venture for LED Sapphire Substrates

Sumitomo Chemical Co., Ltd. (Sumitomo Chemical; headquarters: Tokyo. Japan) and Samsung LED Co., Ltd. (Samsung LED; headquarters: Suwon, Korea) have entered into an agreement to establish a joint venture in Korea for research & development, manufacture, and sales of sapphire substrates for LEDs. This joint venture will initially start with an LED sapphire substrate business, aiming to become a comprehensive provider of LED-related materials in the future.

LEDs are manufactured by slicing sapphire ingots into thin sheets that are processed into sapphire substrates, which are then coated with a luminescent layer. LEDs exhibit outstanding luminescent efficiency and color rendition, and because their low electrical consumption exerts little impact on the environment, they are being used in a wide range of fields. Further market growth is expected mainly in applications for LCD television backlights, interior lighting, and automobiles, and therefore demand for sapphire substrates and related materials is anticipated to increase.

Sumitomo Chemical provides materials such as high-purity alumina used as a raw material in sapphire substrates and liquid crystal polymer used in materials for LED packages. Last year, Sumitomo Chemical's wholly-owned subsidiary Dongwoo Fine-Chem (headquarters: Seoul, Korea) commenced development of sapphire substrates, and is devoting efforts to upgrading its production facilities to start commercial production as early as possible. Meanwhile, Samsung LED's core LED business shows promise for future growth, and the company has plans to invest in strategic expansion.

By cooperating to generate synergies in technological development, marketing and other areas, and to strengthen competitiveness, both companies seek to expand their businesses in the area of LEDs, which is forecast to continue to see significant growth.