



IR Message

Hello,

Greetings from the Solus Advanced Materials IR/PR team. As the unusually warm weather for winter continues, we hope that the many investors who always support Solus Advanced Materials will continue to prosper.

Our business includes battery foil, copper foil, and battery copper foil materials. In the last year, we have made a variety of efforts to grow each business. In September, we had a ground-breaking ceremony for a plant in Canada that will launch our battery foil business in North America, and last October, held a completion ceremony for the Hamyeol plant to diversify our products into the area of non-emissive electronic materials. The Electronic Materials Division of Solus Advanced Materials has been making efforts to go beyond emissive materials and achieve stable and continuous growth in the mid-to-long term.

In addition, we earned 342.3 billion won in proceeds from the sale of Solus Biotech to Croda International (UK) during July in the third quarter, which we plan to use as an investment resource for the battery copper business.

In this IR letter, we would like to provide you with an overview of the products, history, and competitiveness of Solus Advanced Materials' battery copper business. In addition, we have posted a promotional video that describes the overall business on our website. We ask for investors' continued interest in us.

Thank you.

Solus News Highlights

Hanyeol Plant Completion Ceremony

Completion of Hanyeol Plant, a production base dedicated to OLED 'non-emissive materials'... Trial production starts

On October 18, 2023, we held a completion ceremony for the non-emissive material plant of our subsidiary 'Solus ITech,' which is located in Hanyeol-eup, Iksan-si, Jeollabuk-do. Solus ITech is the subsidiary we established to expand our business into non-emissive materials.

In this Hanyeol plant, we directly produce OLED non-emissive materials such as 'Filler (high-refractive filler)' and 'high-end encapsulation material', and plan to establish a plant here to manufacture non-emissive material, Quantum Dots (QD) ink, in 2024.

By internalizing the entire process from R&D to the production of non-emissive materials, we will be taking care of everything from raw materials sourcing to final products, and will be able to strengthen quality competitiveness and improve cost efficiency to enhance profitability.



Status of major external IR activities (October ~ November 2023)

Quarterly performance announcement

(2023 3Q performance announcement_2023.10.27) The IR/PR team announces performance every quarter, and on October 27, the 2023 3Q performance was announced in an online conference call.

NDR / Conference / Corporate Day

We participate in a range of IR events including NDR, Conference, and Corporate Day hosted by domestic and foreign securities companies, and actively communicate about the company's management status and issues of interest to investors in a range of ways, including 1:1 meetings with investors and group meetings. We plan to continue to this active communication with our investors in a variety of formats.

[Status of participation in major IR activities]

Domestic IR

DB Financial Investment NDR (10/30~31)
Korea Investment & Securities NDR (11/07)

Overseas IR

BofA Global EV Battery Tech Forum (12/06)

Analyst Reports (October ~ November, 2023)

14 securities companies covering our company in 2023

This year, we were covered by a total of 14 securities companies, 11 domestic and 3 overseas.



Domestic/overseas securities company reports

Kiwoom Securities

Focus on next year (2023.10.20)

SK Securities

Profitability improvement is sluggish, sales rebound (10.30, 2023)

Shinhan Investment & Securities

Indirectly experiencing the pain of the EU (10.30, 2023)

HI Investment & Securities

Battery copper profit improvement rate slower than expected (10.30, 2023)

Macquarie

Downgrade. Six consecutive quarters of OP loss (2023.10.30)

Daishin Securities

Battery copper slump continues (2023.10.31)

DB Financial Investment

NDR Review: Delayed rebound, but gradually recovering (11.01, 2023)

Recovery delayed, looking forward to 2024 (11.21, 2023)

Eugene Investment & Securities

Deficit expected to decrease, but slow recovery (11.27, 2023)

Major press releases (October ~ November 2023)

[Solus Advanced Materials completes construction of Hamyel Plant, a production base dedicated to OLED 'non-emissive materials'... Trial production starts \(10.19, 2023\)](#)

- Completed construction of a new production base for production of organic light-emitting diode (OLED) non-emissive materials and began targeting the market in earnest.
- Direct production of OLED non-emissive fillers (high refractive index fillers) and high-end encapsulation materials

[Solus Advanced Materials, 3rd quarter sales of 111.2 billion won... 10% increase compared to the previous quarter \(10.27, 2023\)](#)

- Sales in the third quarter of this year were 111.2 billion won, up 10.0% from the previous quarter and up 11.8% from the same period last year, and operating loss was 20.4 billion won.
- The battery copper and copper foil business division recorded sales of 83.9 billion won, up 22.3% from the same period last year and up 14.0% from the previous quarter.
Electronic materials business division sales were 27.3 billion won, similar to the previous quarter.

[Solus Advanced Materials participates in 'Zero Disposable Products Challenge' \(10.30, 2023.\)](#)

- Participated in the 'Zero Disposable Products (1zer0) Challenge', a campaign launched by the Ministry of Environment to reduce the use of disposable products in daily life.
- To create a cleaner and safer global environment, a tumbler is provided to new employees joining the company, and the use of personal tumblers in the office is encouraged.
Various other efforts are being made to reduce the use of disposable products in daily life.

※ In addition, Solus Advanced Materials' official press release is available on our website (Media Center>News).

Solus Business Story_Battery copper foil

1 What about the 'battery copper foil' products that Solus Advanced Materials produces in Europe?

VES (Volta Energy Solutions), a subsidiary of Solus Advanced Materials and a European integrated corporation, produces 'battery copper foil,' a copper foil for electric vehicle batteries, at its factory in Hungary. Here, we produce high-quality, wide and long battery copper foil for electric vehicle batteries. Most notably, the battery copper foil has low roughness (surface roughness), which is one of the important factors in battery copper foil quality. We produce customized battery copper foil with high elongation/high strength and a thickness of 6~8 μm (micron), and we can also produce an even thinner battery copper foil of 4 μm depending on customer requirements. The thinner the battery copper foil is, the more lightweight and high-capacity batteries you can produce, which also has an effect on improving energy density. It is easy to improve productivity and reduce costs with long and wide battery copper foil. battery copper foil is in a manufacturing group that has a high barrier to entry due to the high level of technological manufacturing difficulty in realizing ultra-thin, high elongation, and high-strength properties.

2 What is the history of the process from development to mass production of battery copper foil?

Solus Advanced Materials acquired CFL (Circuit Foil Luxembourg), the first company to develop battery copper foil, in 2015, and began preparing to enter the battery copper foil business in Hungary in 2018. CFL, a subsidiary and copper foil production base located in Luxembourg, established a JV with Furukawa in 1970, over 20 years ago, and manufactured battery copper foil for the first time. Based on CFL's battery copper foil technology, we started construction of a factory in Hungary in 2019, and entered mass production in 2020. A trial production stage began in April 2020, and we finalized incentive negotiations with the Hungarian government in May of the same year. After completion of the battery copper foil factory in June, we were able to ship the first mass-produced battery copper foil products in December of that year. This means that we went from the start of construction to trial production and shipment of the first mass-produced product in just over a year, an impressive feat. The product tested at the time was a 6 μm (micron/ μm ·1 millionth of a meter) battery copper foil. The fact that the first mass-produced product was shipped in just one year is a clear demonstration that Solus Advanced Materials was recognized for its product competitiveness by quickly meeting the demanding expectations of customers. The Hungarian factory started mass production soon after and is targeting a total capacity of 100,000 tons. Currently, Solus Advanced Materials, which has Europe's only battery copper foil and copper foil production base, promptly supplies customized battery copper foil to many battery and automobile companies in Europe. The Canadian plant, on which construction recently started, plans to mass produce 25,000 tons by 2026 and is expected to have a total battery copper foil production capacity of 63,000 tons.

3 What are the unique factors and strengths of Solus Advanced Materials' battery copper foil products?

We provide customized battery copper foil with high elongation and high strength at a thickness of 6~8 μm . We keep the technology to make it even thinner with the original technology of our subsidiary, CFL. We are the only domestic company to have an overseas battery copper foil production base, enabling rapid transportation and customer support. As there has been a trend of carbon reduction such as RE100, it is of increasing importance to manage the carbon footprint at the parts and materials level. Considering the additional carbon emissions generated when producing in Asia and then transporting it to European or North American customers, Solus Advanced Materials, which has the only battery copper foil production base in Europe and Canada, is regarded as a more attractive supplier to local customers. Copper (copper scrap), a raw material, is procured locally in Europe, and we plan to procure it locally in Canada as well.

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