

Designing the future, Sparking growth!

With technology that creates value for our customers, we connect advanced materials and innovative solutions to human life for a better future.

IR letter

2023_Vol.1

IR Message

To all investors:

This newsletter was written by the Solus Advanced Materials IR/PR team. We sincerely thank you for your support for and continued interest in the company.

To serve the investors who are particularly interested in what we are doing, starting this year, the Solus Advanced Materials IR/PR team plans to further strengthen communication with investors by offering our new 'IR letter' in addition to the existing quarterly earnings presentations.

The IR letter that you are currently reading is the first one of this year. Moving forward, the IR letter will be published 4 times a year, and will also be posted on the company website so that it is easily accessible to anyone interested in the company.

The purpose of publishing this IR letter is to share key information on the management status and achievements of Solus Advanced Materials with investors, while informing them of future business plans and major news, thereby strengthening communication with the market to understand and take a step closer to our investors.

As this is our first IR letter, we will start with an introduction to the company, and then go on to explain our external IR activities, major press releases, publications of securities companies (analysis reports) related to this company, and our core businesses such as battery copper foil and copper foil from January to May this year in a way that is easy to understand.

We are grateful for your continuous interest in and encouragement of Solus Advanced Materials, and we will strive to meet the expectations of investors by growing into a company that creates new value through the continuous development of new materials and technological innovation.

Thank you.

Company Introduction

Solus Advanced Materials is realizing continuous growth through the Battery copper foil/Copper foil/Electro-materials/Bio business.



**Battery
Copper Foil**

The only battery copper foil production base (Hungary) in Europe.

Supplying battery copper foil to global battery companies and EV companies
Planned to operate a Canadian production base targeting North America by the end of 2024



Copper Foil

Technology capable of producing foils ranging from general copper foils to high-end copper foils

A diverse product portfolio, such as low loss, high-frequency, and ultra-thin products, based on technological superiority



**Electro-
Materials**

Monopoly in the aETL market with patented OLED core materials

Supplying various OLED materials to major global display companies
Expansion of business area by supplying non-light-emitting materials such as fillers



Bio

Possess Nature derived moisturizer (Ceramide)

Outstanding technology and competitiveness have been highlighted in the global market and are currently in the process of sales with British chemical company 'Croda'

Status of External IR Activities (January ~ May 2023)

Quarterly Earnings Presentations

('22. 4Q Earnings Report_2023.02.09) We have been giving quarterly earnings presentations, and held a face-to-face annual earnings presentation for 2022 at the Federation of Korean Industries Hall in Yeouido last February, with 31 investors including analysts attending for the first time since the outbreak of COVID-19.

('23 1Q Earnings Call_2023.04.25) The earnings presentations for the first quarter of 2023 was conducted through a non-face-to-face conference call sponsored by CLSA Securities.

NDR / Conference / Corporate Day

We are actively participating in various external IRs including NDR, conferences, and Corporate Day organized by domestic and foreign securities firms, and share information on our management status and issues of interest with investors through various types of meetings such as 1:1 meetings for each investor or group meetings. We plan to continue our communication with investors through various external IR activities in the future.

[Participation in major IR activities]

1. Shinhan Securities' NDR (2/10~13)
2. Eugene Investment's NDR (4/26~27)
3. JP Morgan's Korea Conference (2/23)
4. Citi Korea Investor Conference (3/10)
5. BofA 2023 Korea & Global EV/EV Battery Conference (5/15)
6. Hana Securities' Corporate Day (5/30)



Major Press Releases

[Solus Advanced Materials achieved 461.2 billion won sales in last year... 21% increase compared to the previous year \(2023.02.08\)](#)

- Since company's establishment, sales have grown by more than 20% per year on average, and external expansion has continued
- Turned into a loss compared to the last year due to unfavorable internal and external conditions, including the aftermath of soaring electric costs in Europe
- With the goal of turning a profit in the second half of this year, we will strive to stabilize production in the battery copper foil business.

[Solus Advanced Materials relocated to a new building in Bundang \(2023.03.29\)](#)

- Company-wide integrated base for strategy, R&D, and sales with an area of approximately 70,413 square meters, 3 stories above ground · 4 stories below ground
- Integrating resources and capabilities to strengthen customer service and spur business growth

[Solus Advanced Materials recorded sales of 112.8 billion won in the first quarter ... 3.4% increase compared to the previous year \(2023.04.25\)](#)

- Achieved highest quarterly sales ever in the battery copper foil/copper foil sectors at 85.4 billion won, a 38% increase compared to the previous quarter
- Starting mass production of battery copper foil at the 2nd plant in Hungary in the 2nd quarter; planning to expand supply of high-end copper foils

[Solus Advanced Materials expands non-light-emitting materials in electronic materials sector ... Starting the construction of a new production base \(2023.05.10\)](#)

- Strengthening market dominance in both light-emitting and non-light-emitting materials for OLED displays
- Started the construction of subsidiary 'Solus I-Tech' plant, aiming for mass production of filler · high-end encapsulation materials within this year
- Expansion of applied products from TVs and smartphones to tablet and other IT devices, AR/VR, and automotive products

※ You can also check the official press releases of Solus Advanced Materials on our website ([Media Center>News](#)).

Analyst Report (January ~ May 2023)

Reports from Domestic Securities Companies

Daishin Securities

Turnaround in the 2nd quarter for copper foil and the 4th quarter for battery copper foil (2023.02.10)
It's getting better little by little (2023.04.26)

Shinhan Securities

Bottom passing point (2023.02.10)
Review of NDR; Copper foil is also booming in orders (2023.02.14)
It will be good in the second half (2023.04.26)

Eugene Investment

Expected to start turnaround in 2023 (2023.02.10)
1Q23 Review (2023.04.26)
Q4 Turnaround Expected (2023.05.30)

Kiwoom Securities

Prospect of accelerating expansion of North American plant (2023.02.10)
Full-scale improvement of profitability in battery copper foil (2023.04.26)

Hana Securities

Mid- to long-term perspective approach (2023.02.10)

Hi Investment & Securities

Limited upside capacity for stock price considering controlling shareholder's net profit (2023.04.26)

Hanwha Investment & Securities

A period when patience is required (2023.02.10)
Need to improve orders & profitability for neglected battery copper foil (2023.04.17)
Wistful 1st quarter, expecting recovery from the 2ndquarter (2023.04.26)

DB Financial Investment

Expect deficit to shrink by 3Q23 and turn 4Q23 into surplus (2023.05.30)

DS Investment & Securities

Mid- to long-term business conditions are good, but falling power costs are the key (2023.05.30)

SK Securities

Localization: Securing a bridgehead for overseas expansion (2023.05.23)

Reports from Foreign Securities Companies

BofA Merrill Lynch

Weak 4Q, lifted order backlog but delayed BEP target, balanced risk (2023.02.09)
1Q miss; widened loss on high costs (2023.04.25)

Macquarie

Intentional production cut on high utility cost (2023.02.10)
Recovery at a slower pace (2023.04.25)

Morgan Stanley

4Q22 In Line OP, but NP Miss (2023.02.09)
1Q23 OP Miss (2023.04.25)

Solus Business Story_Copper Foil and Battery Copper Foil

Copper Foil and Battery Copper Foil in Solus Advanced Materials

Copper foil is literally a thin film made of a very thin layer of copper.

It is widely used in a range of electronic components such as circuit boards (PCB), semiconductors, antennas, communication equipment, and in high-tech industries such as secondary battery negative electrode collectors and aerospace applications.

Copper foil is an industry that requires a higher level of production technology because it must be thinner, more consistent, and have a lower surface roughness than hair.

With the growing demand for secondary batteries these days, the use of copper foil as a negative electrode collector is increasing. Currently, the copper foil used is called battery copper foil.

In this IR letter, we will take a look at battery copper foil and copper foil, which account for more than half of the sales of Solus Advanced Materials and will lead our present and future.

? What is the difference between copper foil and battery copper foil?

✓ Copper foil production goes through a total of 6 steps: **Dissolving** → **Plating** → **Treating** → **Slitting & Sheeting** → **Inspection** → **Shipping**. But unlike copper foil, the battery copper foil used as the cathode current collector in a secondary battery does not go through a treatment process.

? Why does battery copper foil not go through treatment?

✓ Copper foil goes through a separate surface treatment process using chrome and zinc to prevent oxidation and increase functionality. On the other hand, battery copper foil is a negative electrode collector, one of the secondary battery materials, and undergoes only minimal antioxidation preventive treatment with chromium in the plating process in order to minimize electrical resistance on the surface of the copper foil to the cathode active material.

? Solus Copper Foil Manufacturing Technique – Thinner With Electrolytic Copper Foil!

✓ Production methods for copper foil can be divided into the rolling method and the electrolytic method. The rolling method presses the copper foil to make it thin while narrowing the gap between the rollers. A thinner copper foil means an exponentially higher production cost. However, **the electrolytic method of plating copper through electrolysis** can manufacture copper foil that is thinner, has a more uniform thickness, and is wider at a lower production cost than the rolling method, and produce various thicknesses of copper foils by adjusting the rotation speed and current of the drum.

? Performance of Solus Copper Foil/Battery Copper Foil



Secondary batteries used in EVs



Various electronic components such as printed circuit boards (PCB), data centers, 5G communication equipment, IC/USIM cards, etc.

? Differentiation of Solus Copper Foil/Battery Copper Foil

- ✓ **Development and mass-production of the world's first battery copper foil:** Securing stable manufacturing & management technology with more than 60 years of know-how in producing copper foil
- **Possession of ultra-thin manufacturing technology:** Supplying copper foil suitable for the trend of lightening electronic/IT products with ultra-thin manufacturing technology of $2\mu\text{m}$ or less
- **Supply of customer friendly battery copper foil:** Preparing to enter the North American market one step ahead with the goal of fast delivery to local battery cell makers in Hungary and mass production at the Canadian plant in the second half of 2024

Solus Advanced Materials Co., Ltd.
www.solusadvancedmaterials.com

