

Q&A Summary of the IR Business Briefing of Furukawa Electric Co., Ltd.

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Contents: Functional Products business

Speaker:

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Observers:

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Q: In tape for semiconductor process, I understand that you will expand into applications other than memory, but will this require a new response in terms of technology or otherwise? Also, where are the customers you will target located?

A: We are currently supplying a variety of tape. Our ability to provide tape that matches the customer's manufacturing process and inherent characteristics of the products and also to align with the customer's requirements is now one of our strengths. We are targeting strong manufacturers in the upper tier of the industry. Our competitors include companies in Japan, Taiwan and the US. In particular, the Taiwanese companies have been very aggressive, and the American companies are also becoming more active.

Q: In relation to the market environment and competition in thermal products, what is Furukawa Electric's position within the market?

A: The heat dissipation characteristics differ depending on the applications targeted by each company (so it is difficult to compare with competitors). Data centers and CPUs are around 300W and require cooling in a narrow range. Railroads and solar power require cooling on the 10kW level, and it is difficult to achieve cooling with a single metallic product. We are targeting the segment that requires the use of heat pipes or newly developed products to replace heat pipes.

Q : In tape for semiconductor process, I believe competition with other companies is intensifying within the existing customers, but what is your outlook for the next 1-2 years?

A : I have stated this before in the past, but competition is intensifying. The Korean manufacturers, who account for the top share of our deliveries, have implemented a Made in Korea policy, making this a particularly challenging year. I believe we have technological superiority, but competition is likely to further intensify going forward. For this reason, we will proactively work to expand sales.

Q : Given the recent challenges in copper foil business, I believe you are shifting toward high performance products, but what improvement do you feel this will have over approximately what period of time?

A : We believe the business will improve as the market environment recovers, but the fire at the Taiwan Plant (last year) had a major impact, and we are currently working to reestablish the business directed at next year. Presently, we are aligning within the customer specifications, and we expect to realize improvement next year.

Q : To what extent will you restore the manufacturing capacity at the copper foil plant in Taiwan that was damaged by the fire last year?

A : It will not be returned to the same level as prior to the fire. Instead, we will increase the ratio of high performance products.

Q : In tape for semiconductor process, why did you not expand earlier into applications other than memory?

A : Our primary policy is to secure stable profits through deliveries to high volume customers in the upper tier of the industry. However, we have been planting seeds with other companies and for additional applications over the past several years, and going forward, we will focus more of our efforts on these areas.

Q : The delays in civilian construction projects in the first half has had an impact on functional products, but what is your outlook for the future? Also, what are your expectations for profit contributions from the skill-free products?

A : There is still some uncertainty regarding the recovery going forward, and the recovery

may not occur until next year. In particular, the recovery has been slow in the railroad segment. In regard to skill-free products, we will actively work to expand sales in response to the demand for catching up from project delays caused by a lack of skilled labor. We will aim for our products to be readily recognized by customers when the market environment returns to normal.

Q : What is the quantitative image of the level to which you will restore copper foil production capacity? Also, what ratio of high performance products will you aim to achieve?

A : Production capacity (of copper foil for wiring boards as a whole) will be restored to about 80% of the level prior to the fire. I cannot provide a specific figure for the ratio of high performance products, but we intend to further increase the current ratio. Also, we are focusing our efforts on copper foil for batteries in addition to copper foil for wiring boards and will continue to supply customers who recognize the features of our products. We will work to increase profits by optimizing the balance between copper foil for wiring boards and copper foil for batteries.

Q : What changes has 5G had on copper foil, and what impact has response to high frequencies had on copper foil?

A : Not only in the area of copper foil, the response to 5G requires high speed and high performance. There has been no major change in the direction of development itself, but we will promote development that responds to the requirement of high speed. We are working to develop foil that has a good balance of surface flatness and adhesion with plastics and other materials.

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