Technology Report

Drying Powder Technology Brings New Possibilities for Polyacrylamide (PAM)

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1 SUMMARY

The polyacrylamide (PAM) that our company manufactures and sells as a drying paper strengthening agent and binder for lithium-ion secondary batteries (LIB) is produced as an aqueous solution and is used as a liquid product. Therefore, we provide PAM as a viscous aqueous solution (Figure 1).

Liquid products have the disadvantage of being inconvenient to handle, and they incur high transportation costs. For this reason, our company has been engaged in research on powdering liquid products for some time. As a result, we have developed technology to process PAM into a powdered form (Figure 2) while maintaining its molecular structure, establishing a system to supply powdered PAM.

Powdered PAM is easy to handle and readily disperses into other raw materials. This leads to simplification of equipment and increased efficiency in operations. Additionally, since powdered products are more stable than liquid products, long-term storage of the products is possible.

The powdered PAM products that we have developed, known as the AIP series (AIP-101, AIP-102, AIP-103), are detailed in the Technology Report Japanese Edition.

Fig.1 PAM Liquid Products

Fig.2 NEW Powdered PAM