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Mitsubishi Chemical and Daiwa Can Develop Compostable Lid

Mitsubishi Chemical Corporation
Daiwa Can Company

Mitsubishi Chemical Corporation (MCC; Head office: Chiyoda-ku, Tokyo; President: Masayuki Waga) and Daiwa Can Company (Daiwa Can; Head office: Chiyoda-ku, Tokyo; President: Hirohisa Yamaguchi) have developed an industrially compostable lid that can be used for paper cups and other containers, using MCC's compostable polymer compound FORZEAS™.

Conventional disposable lids are usually made of polystyrene (PS) or other non-compostable plastics. MCC and Daiwa Can have developed their compostable lid through material development and a number of trials using MCC's compostable plant-derived polymer compound FORZEAS™, which is molded at Daiwa Can.

To be usable for hot drinks, disposable lids require heat resistance and flexibility properties to prevent the opening hinge from breaking. The two companies succeeded in developing a lid that meets performance requirements by reexamining the material design and lid shape design. Additionally, as FORZEAS™ has excellent heat resistance, there is no need for special processing to increase the property that are required when using other compostable plastics, such as polylactic acid. Thus, the material can be molded with existing machines that are used to produce PS lids.

By combining with a paper cup that has been laminated inside with MCC's compostable resin BioPBS™, the two can be composted together at a composting facility without being separated.

MCC and Daiwa Can are aiming for this compostable lid to be used in convenience stores and cafes. The companies will conduct trials as well as establish a system in which the companies can introduce compostable materials for food packaging as a total solution.

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