

Serving up innovations

Having consistently upgraded its thin wall moulding expertise for a variety of food packaging applications, the upcoming product innovations for CP Packaging are the development of advanced in-mould labelling and bioplastics processing capabilities. Keith Boi reports

CP Packaging (www.cp-pack.com) was founded in 1995 and is a subsidiary of the Charoen Pokphand Group, one of the largest business conglomerates in Thailand with interests ranging from agricultural and food products to telecommunications and retailing.

With production that run the gamut from drinking cups to frozen food containers (such as ice cream tub), CP Packaging currently runs about 20 injection moulding machines at its factory sited in the Bangplee Industrial Estate in the Samutprakarn province.

One of the developmental targets for CP Packaging over the last few years has been on scaling up its thin wall moulding technologies for various food contact packaging applications, branching out from producing drinking cups to a wider range of food and beverage containers.

Novelty packaging items, especially in the form of promotion cup products commonly found in fast food and cinema chain outlets, have also become a measure of the company's drive to develop creative packaging designs with wide appeal — such as employing lenticular graphic effects to bring a fresh leash of life to the promotional packages.

Chaipong Chainapaporn, senior vice president of CP Packaging, says: "The food packaging industry is experiencing great growth and with that, there are now greater requirements for a high standard of hygiene along with a strong interest in increasing the function of packaging. In terms of new product research and development, we take a well-rounded approach that looks into new developments that are emerging from the perspective of graphic design, polymer engineering, processing knowledge and food sciences."

To meet the latest industry standards for thin wall moulding technology, the 20 machines CP Packaging currently runs include four Husky and six Netstal injection moulding machines. The company is starting to study production options on thermoforming lines, particularly for higher volume commodity production. Chainapaporn notes that while thermoforming processes have their advantages, their capabilities will not be able to match the production parameters of high speed injection moulding in certain aspects

— especially in the in mould labelling (IML) packaging segments that CP Packaging is planning to further develop on.

"In thermoforming processes, it is much more difficult to control the wall thickness of the container produced," says Chainapaporn. "On the other hand, high speed injection moulding is able to offer more precise wall thickness and dimensions to meet customer requirements. This also becomes a major advantage when it comes to IML



High speed injection moulding machines are installed at CP Packaging's facility for thin wall packaging production

applications, which are typically achieved on injection presses."

CP Packaging sees strong business potential in the IML production process for microwaveable packaging containers for soup and noodle products.

"Right now, there often arises an issue with the hygiene standards of the labelling process for this packaging product segment," Chainapaporn says. "IML processes can considerably make the production more hygienic through the robotic handling of the package labels."

In the beginning of next year, CP Packaging will be improving the existing machines to introduce new IML capabilities, as well as investing in new machines that can offer turnkey IML solutions. "We expect this to be a large market for CP Packaging, and the expected demand volume is big enough to justify the new investments to be made," adds Chainapaporn.

Entering the compostable market

Another recent technology endeavour for CP Packaging is to explore market opportunities for environmentally friendly products, specifically in the area of compostable packaging.

Use of plant-based resins for packaging applications has not seen significant gains in Thailand and South East Asia yet, mainly because of the higher material cost and processing challenges that arises with bioplastics.

On this note, Chainapaporn explains that the research efforts of the CP Group's polymer compounding business arm have been able to help improve the processing characteristics of bio-based resins to better meet end user demands. "The key is to be able to change the viscosity and melt temperature profiles of the bio-based resins we use for thin wall moulding, as well as working with the machine suppliers to look into how we can alter the mould setup," Chainapaporn says. "This is a significant step for us because it allows us to make commercial gains in this area. We already have kicked off commercial bio-based packaging production for one of our export customers, and we are confident that more interest will pick up for compostable packaging."



Chaipong Chainapaporn, senior vice president of CP Packaging, sees immense potential for IML applications in a wide range of packaging